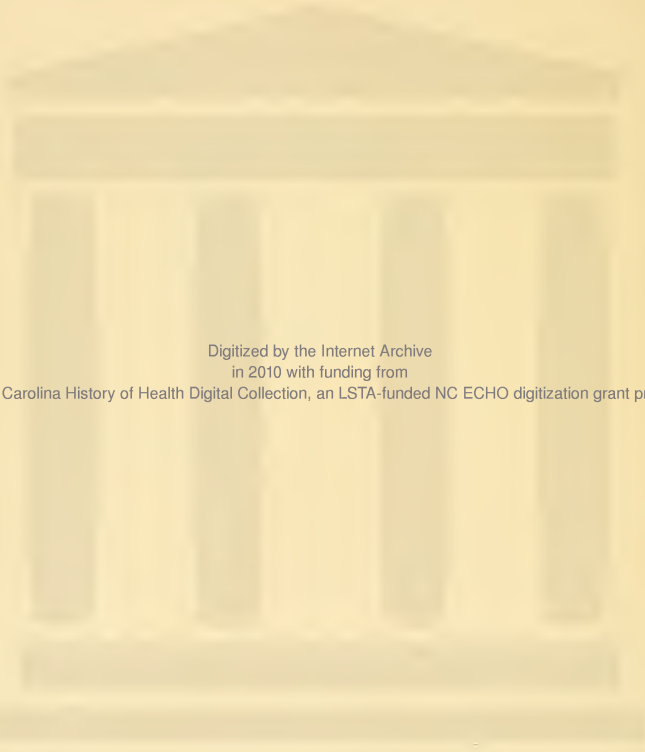
65912

Class _____. No. _____

Presented by

W. A. Hare, M.D.

1890



Digitized by the Internet Archive
in 2010 with funding from
North Carolina History of Health Digital Collection, an LSTA-funded NC ECHO digitization grant project

http://www.archive.org/details/charlottemedical221903char

Charlotte Medical Journal.

A MONTHLY JOURNAL OF MEDICINE AND SURGERY.

Charlotte, N. C., January [illegible]

The Red Blood Corpuscles multiply more rapidly under the influence of

Extract of Red Bone Marrow

than under that of any other remedy.

SPECIFY ARMOUR'S

Armour & Company
CHICAGO

COLLEGE OF PHYSICIANS PHILADELPHIA

ST. LUKE'S HOSPITAL
RICHMOND, VA.

CHARLOTTE, N. C.

The Charlotte Medical Journal.

VOL. XXII. CHARLOTTE, N. C., JANUARY, 1903. No. 1

On the Diagnosis of Ectopic Gestation.*

By H. A. Royster, A. B., M. D., Raleigh, N. C., Professor of Gynecology, Medical Department, University of North Carolina: Gynecologist to Rex Hospital; Surgeon-in-charge, St. Agnes' Hospital.

While the occurrence of extra-uterine fetation was known to the ancients and although descriptions of very old authentic cases are on record, the subject was little understood before the treatise of Parry appeared in 1876, and no classification was possible prior to the work of Lawson Tait. Even up to a comparatively short time ago, the condition was considered rare and extraordinary. In the memory of physicians, just now in the prime of life, cases of ectopic pregnancy were formerly found few and far between, and much uneasiness was felt in their diagnosis and management. At the present time, however, medical literature is crowded with them, so that there is hardly a current journal but contains reports of such cases in some form or other, and scarcely an operator who does not present his share of them.

This large number of cases is probably due both to an absolute and relative increase in frequency; that is, the condition may occur more often of itself owing to the wide prevalence of pelvic disease, and also the cases may be more easily and promptly recognized. Undoubtedly the latter alternative is true. Physicians discover cases of ectopic gestation much more certainly of late years, because their attention has been definitely called to the condition. They are on the look-out for it. The accidental discovery of this lesion by abdominal surgeons in many unsuspected cases has done a great deal toward pointing out to the practitioner the ever-probability of its presence. This trend of circumstances has had a beneficent influence, for there can be no morbid state which needs earlier or surer revelation than ectopic pregnancy.

That the diagnosis of this affection is always an easy matter, however, will not be granted by those who have had the most experience with it. It is true that the typical text-book cases are so clear that they may often be diagnosticated by means of the history alone. Indeed, for the vast majority of cases, the history is the most important element, without which even a pelvic examination might be of doubtful value. An orthodox train of events may be summed up as follows: Cessation of menses for two or three months with other signs of pregnancy, following upon a period of sterility; a sudden, sharp, sickening pain in the abdomen, with symptoms of schock and the appearance of hemorrhage from the genitals; then either a fatal ending or a slow restoration accompanied by pain, anemia, a constant discharge of bloody material and pressure symptoms. These phenomena, if present, point strongly to ectopic pregnancy and they constitute sufficient evidence upon which to base a probable diagnosis. Their confirmation by the findings of a bi-manual examination would complete the picture.

But, very frequently this typical history does not obtain, being wholly or partly lacking, while on the other hand, there may be an ectopic gestation without a single symptom to indicate its presence. It is to these off-color cases that we should address our earnest attention and this paper is principally concerned with a presentation of them. Pelvic diagnosis at best is fraught with difficulties, which can be conquered only by persevering experience. "I think" is a safer formula than "I know" in expressions of opinion on obscure abdominal cases.

My experience with extra-uterine pregnancy has been proportionately out of the ordinary. As a hospital interne seven years ago, I saw five cases during my first month —an occurrence which emphasized to me their importance. During the few years that I have been operating, out of a total of nearly 260 abdominal sections, I have encountered 18 cases, representing various stages of the malady. In 1897 I reported a case of combined intra- and extra-uterine pregnancy at term.* Besides this, there are now on my records two other full-term cases, to be noted below. Of the remaining ones, several present interesting features. By reviewing some of these cases we may best bring out the questions of diagnosis.

One of the conditions most often confounded with extra-uterine gestation is a *pelvic abscess*. In the absence of any suggestive history it is generally supposed that the abscess produces a higher temperature, with septic symptoms, and that the feel of the mass is more fluctuating than elastic. I once heard two eminent authorities in gynecology disagree over a case of this nature, which was not settled until the operation proved that the lesser of the two

* Read before the Seaboard Medical Association, December 15, 1902, Wilson, N. C.

* Amer. Jour. Obstet., Dec., 1897.

65912

lights was correct in his opinion. There is no end of instances to show that a pelvic abscess may exist without fever and that ectopic cases often run a decidedly febrile course. The following case is apropos: L. C., age 28, mother of two children, was admitted to St. Agnes' Hospital for treatment of "pelvic trouble." The history was not distinctive. She had had metrorrhagia but had been curetted a week before and this had ceased. She had constant pain and there was a soft, tender mass in the left pelvic region and a smaller mass in the right side. Her temperature ran frequently above 102, occasionally to 103 and was irregular. There was reason to suspect gonorrhœal infection. While the woman was being watched for diagnosis, with leanings towards pelvic abscess, she was suddenly seized during the night with a sharp pain in the abdomen, followed by return of the hemorrhage. This established the condition beyond a doubt and as early next morning as possible, her abdomen was opened. After clearing away clots, it was found that the left tube had just ruptured and was still bleeding. Ligatures were placed rapidly on the ovarian vessels and the mass removed. A very small fetus was discovered. The enlargement on the right proved to be a big pyosalpinx, which was also removed. The woman made a perfect recovery. Here was a case exhibiting both the abscess and the extra-uterine pregnancy, a state of affairs which could not be differentiated before the rupture occurred. The confusing elements in the dignosis are obvious.

Pregnancy in the rudimentary horn of a bicornate uterus, is often spoken of as likely to be confused with ectopic gestation. Sometimes the diagnosis may be impossible. I have seen no cases of this kind. Kussmaul reported 13 instances from the literature and most of them had been called tubal pregnancy.

I once mistook an *acute hemorrhage of the ovary* for ectopic gestation. A woman was brought in with symptoms of extreme collapse, hemorrhage, and the history of having been suddenly seized with severe abdominal pain, a few hours before. There was a mass on the left side. After she had rallied, the cul-de-sac was opened. There were found free clots in the abdomen and a large left ovary distended with blood. Pryor* mentions three such cases and thinks that they offer additional explanation of so-called ovarian apoplexy.

It is not at all an uncommon error to confuse ectopic with *normal pregnancy*. Especially is this true if the gravid uterus be retroverted or inclined laterally, or if the ovum develop in one corner, distending the womb on that side. Examination under an anesthetic usually settles the question; though if uncertainty still remains exploratory section is justified. E. P. Davis* has just reported an excellent example of this kind. A young woman who was pregnant, had intermittent pain with hemorrhage and a soft, boggy tumor completely occupying the posterior cul-de-sac. Operation revealed a retroverted normally pregnant uterus. The woman subsequently returned and aborted at 6 months, when the uterus was found lined with clotted blood. A similar instance recently came to my attention. Mrs. X., age 22, who had been married 16 months, missed her menses three times in succession, had nausea and vomiting for three weeks and her breasts were enlarged and tender. She then had an attack of cramps resembling cholera morbus and a slight bloody stain on her genitals but no distinct hemorrhage. The signs of pregnancy became less well marked, and when she came under my observation (Aug. 5, 1902) she complained of pain in the lower abdomen especially on the left side and of frequent and painful micturition. She had noticed no abdominal enlargement. On examination there was found a mass chiefly in the left side of the pelvis, filling up the posterior vaginal fornix. It was boggy and tender to the touch. The uterus appeared to be pushed toward the right side but continuous with the mass. A sound was introduced readily into the womb to the depth of 3 inches. An operation was advised and consent given. The abdomen having been opened by a 3-inch median incision, a retroverted gravid uterus was brought to view and it was seen to be twisted on its axis toward the left. This position was corrected and a small ovarian cyst removed. There was no evidence of extra-uterine pregnancy. The abdomen was closed with the tier suture and the patient made a perfectly normal recovery. She is now well advanced in her gestation without untoward symptoms.

Time after time extra-uterine pregnancies are diagnosed as *miscarriages*. And this is due largely to one single cause, viz., the failure to examine. A careful exploration of the pelvis should be made in every case of suspected abortion, no matter what plan of treatment is to be followed or how simple the case appears. Unless this is done, an ectopic pregnancy will every now and then escape detection and the woman will drag out a weary length of suffering and become excessively anemic or die from exhaustion before relief can come. Many such cases have been regarded as simple

* Amer. Jour. Obstet., Sept., 1902, p. 360.

hemorrhages from retained secundines following abortion and curetted without benefit. In June, 1902, I operated on a case which illustrates this admirably. Mrs. H., age 25, mother of three children, had been curetted by me one year before, two months after child birth, to remove pieces of retained placenta. She recovered promptly and went to live in another place. While there she missed her menses for two months, March and April 1902, and then began to have an intermittent flow of blood from the uterus with moderate pain at intervals. She was told that she was having a miscarriage. She returned to Raleigh and was admitted to my service at Rex Hospital. Her anemia was pronounced. Pelvic examination revealed an enlargement on the left side high up and easily discernible even by abdominal palpation. The posterior cul-de-sac was not encroached upon. A probable diagnosis of extra-uterine gestation was made. On opening the abdomen a very few small clots were evident and no fresh bleeding was seen. When the mass was brought up, it was found to be a tubal ectopic sac, which had in it a small opening through which the slow oozing had taken place. This was tied off along with both ovaries which were cystic and the uterus was suspended. The sac contained a well-formed fetus, more matured than the 2 months' amenorrhea would indicate, showing that it was undoubtedly growing during the period of gradual rupture. The patient had an uneventful convalescence and is now in better health than she has been for many years.

There is evidence to indicate that a full grown ectopic gestation may simulate a *normal intra-uterine pregnancy at term.* On one occasion I was sorely puzzled by a case of this character, and it was after much perplexity that a diagnosis of abdominal pregnancy was made, though the history was certainly suggestive, M. L. P., colored, age 28, who had been instrumentally delivered of one child several years before, failed to menstruate in September, 1900. Three months later she had an attack of pain in the abdomen lasting a few days; but her menses never reappeared and she went on with what she believed to be a normal pregnancy until May 1901, her ninth month. At that time, spurious labor came on,—intermittent pains for 24 hours with sudden and complete cessation of these and of the fetal movements. It was on my return to the city in July 1901 before I saw the patient with her physician, who kindly referred her to me. She was removed to St. Agnes' Hospital.

An examination under ether was necessary before an intra-uterine pregnancy could be excluded. The abdomen was found to be symmetrically enlarged by a mass which was the size of a pregnant uterus at term; the cervix was pushed forward and the presenting part was chiefly posterior. A uterus of normal size was then felt in front of the mass, and a reasonable suspicion of its true nature entertained. At the operation, after a long incision the tumor was delivered without difficulty, there being fortunately no adhesions except a few slight ones to the uterus itself. The pedicle which sprang from the right broad ligament was quickly ligated in 3 sections and the entire sac taken away. Its contents were a fully-developed child in an extreme state of maceration. The most noteworthy fact was that the right Fallopian tube was intact and that the right ovary was not to be found—*prima facie* proof of ovarian pregnancy. However, this rare distinction is not claimed for the case, since the fetal sac was disposed of before a thorough pathological examination of it could be made. The left ovary contained a cyst as large as the average orange and with its tube was also removed. A perfect recovery was the result.

Finally, every abdominal operator sooner or later *stumbles upon cases of ectopic pregnancy when he is least expecting them.* They may complicate other pelvic derangements and, as we have seen, may exist without giving signs of their presence. Especially are they found, when not looking for them, in places where pioneer gynecological work is being done, where cases seldom come for first-hand relief, but only after desperately holding out to the last before giving up to surgical interference. Since the preparation of this paper was begun I have unexpectedly come upon an old extra-uterine fetus and a more interesting case would be difficult to find. L. A., colored, 42 years old, was operated on for what was supposed to be a fibroma of the uterus. The only definite fact in the history was that 4 years previously she had a miscarriage at the 8th month from which she was desperately ill. Soon after the flow ceased a swelling appeared in her left side and had been there ever since. The uterus itself was enlarged by a nodular growth, and on the left there was a mass, somewhat movable, which appeared to be a sub-peritoneal fibroid. The abdomen was opened and, after separating old, dense intestinal and omental adhesions, this mass was removed first by tying off its pedicle from the left broad ligament. During its removal a sac containing grumous material was ruptured. This was thought at the time to be a pus tube. Immediate irrigation was employed, and none of the debris escaped into

the peritoneal cavity. The large uterus, entirely separate from this growth and riddled with interstitial fibroids, was then amputated above the cervix and the abdomen closed, no drainage being used. At first sight the tumor on the left was suspected of being an ovarian fibroma, because of its position, its extreme hardness and also because I had just operated on one of these rare growths the previous week. However, on cutting into it later, the most indurated, globular portion was found to be the skull of a fetus whose tissues were macerated, but the outlines of which with the bones of one lower extremity could be made out. The sac which had ruptured was the placenta, implanted on the uterine cornu and the expanded tube. There was no sign of blood clot or intra-peritoneal extravasation. It was perfectly evident that the product of conception had survived rupture of the tube to perish later from failing nutrition and the presumption is that this accident had occurred four years before at the time of the suspected abortion. For proof of this, the character of the adhesions alone would suffice.

Report of My Own Case of Yellow Fever, in Progreso, Yucatan.*

By Edward T. Hargrave, M. D., Norfolk, Va., Late Acting Assistant Surgeon, Public Health and M. H. S.

I regret very much not having had an opportunity of obtaining from my attending physician, Dr. Chazaro, a history of my case, and this paper is written (with an apology to him) from data jotted down during my convalescence, and no claim is made to absolute accuracy.

I arrived at Progreso, August 6th, 1902, and on September 9, at about 7 P. M., I was suddenly stricken with the disease. I inspected a ship at 6 P. M. and felt perfectly well, though the Captain informed me that I looked like a sick man. Within half block of the American Consulate, to which I was attached, I experienced a great weakness, and within a minute I had a terrific frontal headache, severe pain in the lumbar region and slight nausea. I reached the consulate with great difficulty and undressed. Within 15 minutes, after resting, I made note of my condition, which was as follows: Pulse 90, temperature, 101.2, agonizing pain in head and back, bowels regular, etc. I took 4 C. C. pills and 10 grains quinine sulphate, and stated that I suspected yellow fever. I was alone until 10 P. M. when the clerk of the consulate came in, who found me suffering with severe pain, great thirst and nausea, water being vomited as soon as taken. My temperature was now 102.3, pulse 80. Spent a restless night without sleep. September 10, 6 A. M., persistent vomiting and horrible nausea, temperature 102.6, pulse 76, pain of severest character confined to head and back. I was in a stupor but I thought it advisable to treat myself as long as I could. Cracked ice relieved the nausea sufficiently for me to take and retain the following: One pint olive oil, with lime juice and 3 grs. acetanilid, 1 gr. caffeine and 3 grs. quinine, every 3 hours. At 8 A. M. I sent for Dr. Chazaro, who is regarded as the leader in the profession there. He remained with me for an hour. He spoke very little English and I less Spanish, but through an interpreter I answered his questions. It was a great effort for me to talk and I comprehended the meaning of every word spoken to me with difficulty. He made an analysis of my urine and informed me that no albumin was present, though without his knowledge, I saw him when he made the test and thought I saw a distinct cloudiness. He did all he could to convince me that I was not suffering with yellow fever, but I knew that he suspected it. He gave strict orders relative to withholding all kinds of nourishment, continued my prescription of acetanilid, caffeine and quinine, and while I felt too ill to take my temperature, I thought it was get higher every hour. He also ordered a powder every three hours, which I judged to be sodium sulphate and sugar.

At about 1 P. M., with no one within call of my voice, which was very weak, I had an attack of heart failure. I called, but no one heard me; was covered with a profuse cold perspiration, radial pulse almost absent and very weak and rapid, I could not raise my head from the pillow. After several efforts, I succeeded in securing my hypodermic case which I had placed under my pillow the night before, but my sight was so much impaired that I could not read the labels on the small vials. My case contained six vials containing morph. sulph., gr. ¼, Apomorphine, atropine, nitroglycerine, strych. sulph., gr. 120, ergotin and spartein sulph. A sense of impending death seized me, and events of my past life passed in rapid review before me. I experienced the sensation of being rapidly lowered into unknown dark depths, to ascend immediately a great distance upward. I was not very much frightened, but I hated to die so far away from home. I began tasting the contents of each one of the vials, and after tasting all, I selected two of the most bitter, which was strych-

* Read before the Seaboard Medical Association. December 15, 1902, Wilson, N. C.

nine, dissolved them in the saliva of my mouth and swallowed. I am sure the succeeding ten minutes were the most anxious I have ever known. Aften ten minutes, (it seemed that many days) the horrible sensations disappeared slowly, and my radial pulse began to feel stronger and less rapid. A half hour later some one entered the room and spoke, I sprang up in bed, to sink immediately back again exhausted, the strychnine had evidently stimulated the reflexes. The remainder of the day passed without my knowledge, though I took my medicines without much trouble according to the statement made afterward by an attendant. At six P. M. had large movement from the bowels. Passed about 8 fluid ounces urine since sickness began. Physician visited me during the night and found me suffering much pain, but administered no opiate. Passed the night without sleep.

September 11, morning. Felt very feverish, pains and nausea still present. Jaundice first noticed by me. I felt sicker than at any time during my sickness, except when I had the attack of heart failure referred to above. I requested a hand mirror from an ignorant attendant, and I was startled at my appearance. My face looked so lifeless and the expression was absolutely vacant. About noon, while suffering from an attack of vomiting and nausea, I ordered one of my attendants (some ship-wrecked American merchant sailors, who were being cared for at the consulate) to procure me some ice cream (made by an American from materials imported weekly from New York) and told him to keep his mouth shut about what I ate. He brought me a quart, and I ate nearly half of it before it melted, and had to conceal it from the Consul and clerk, who tried to carry out my doctor's orders to the letter. During the night, I ate or rather drank the remainder. I believed in the theory that a non-nitrogenous food like olive oil was beneficial and I substituted the ice cream because it is more agreeable to the taste and practically free from nitrogen. The first three spoonfuls relieved the nausea and I felt more comfortable. Dr. Chazaro called in consultation the Ex-Health Officer of the port, whose name I cannot recall, and both gentlemen attended me throughout my illness. During the day, I requested the Consul to wire the Surgeon General of the Public Health and Marine Hospital Service, that I had yellow fever, explaining to him (the Consul) in a few words at a time on account of extreme weakness, the necessity of my immediate removal from the Consulate. I also told him I did not fear the disease, and expected fully to recover. After consulting with the physicians at their next visit, they consented to my being told that I had yellow fever. During the day I passed about 4 ounces of urine, very dark in color.

September 12. All of my symptoms, with the exception of nausea and vomiting which ceased after eating the ice cream, continued and even increased in severity. I could not make the slightest muscular movement without its increasing the pain in the head and back. They decided to move me from the consulate and secured a vacant house near the gulf shore about a mile distant. Dr. Chazaro very kindly sent me his buggy for the purpose, there being no carriage or ambulance obtainable. I was utterly indifferent to where I was to be taken, and everything, but when they requested me to try to walk to the buggy, a distance of ten yards, I realized that the attempt would probably cost me my life, and absolutely refused in such strong language, that they carried me. I assumed a half reclining position, and while the trip was made slowly, it was perfect torture. On reaching the house I was utterly exhausted, and felt as if I was going to have another attack of heart failure. I asked for a teaspoonful of Aromatic spirits of amonia out of my medicine case, which revived me. The house was a one story building without windows, but provided with two doors, and divided by a half partition. The gulf breeze blew through the open doors and it was a very pleasant place compared with the Consulate, which is situated in the noisy, business section of the town. The Consul, acting first through personal motives, and later through telegraphic orders of the authorities at Washington, put forth every possible effort to secure suitable attendants, but money and influence could not get what did not exist, and in place of trained nurses, I had a jamaica negro, and a honduran white man, who was serving a term in the jail. The Mexican authorities very kindly released him at the request of the Consul, who explained why he was wanted. H posed as a yellow fever nurse. The saline powder was continued, and antiseptic rectal injections begun. I regret not knowing what it was. A half gallon was used every four hours and was continued throughout my illness. At night (the first since removal) nausea and vomiting returned, vomitus being brown in color, high temperature, general pain and soreness. I could not move or speak without intense pain. During the day I had not passed a drop of urine. During the night my faithful attendants slept a greater part of the time and I had to remain alert in order to get

my medicine at the proper time, and I skipped some doses because I could not make enough noise to wake them up.

September 13, 8 A. M. Physicians visited me and found me in a stupor. After repeated efforts, I made known the fact that I had not passed urine for over 30 hours, and my bladder was empty. No measures were taken to establish the urinary secretion, and they told me that I was doing right well. I neglected to state that they had ordered a warm bath once daily, which was given. After the physicians left, I heard my attendants discussing a remark made by them to the effect that I had but little chance of recovery. I was too stupid to care for anything, but I asked them to get me some turpentine, threatening them with a fake pistol if they refused, and one of them brought it. I took ten drops on sugar every three hours, made them rub my back with it and drank all the water I could every hour. Had myself wrapped in a pair of blankets, and was soon in a very profuse perspiration. During my entire illness, even when my fever was high, my skin remained moist. Late in the afternoon I felt better, and by 8 P. M., when the physicians called, I had passed about half gill very dark yellow urine, and the daily secretion increased steadily afterwards. Both gentlemen informed me that I would recover if nothing unforeseen happened, if I continued to take my medicine, etc. My gums were very much swollen and sensitive, and at night a profuse hemorrhage set in, and notwithstanding all the known local astringents that were used, it continued almost constantly for three days, preventing sleep. I checked the flow by taking 15 minims of ergotole every two hours, using only three doses. I happened to have the latter drug in my case. During the night of September 13th, my attendants engaged in a desperate fight, and they were too drunk to pay any attention to my orders to keep quiet. They could not be discharged, for they were the only men in the place that could be of the slightest use to me.

About the 7th day of the disease, my temperature went down and the pain and soreness began to diminish sufficiently for me to sleep. I was allowed one teaspoonful of chicken soup, FREE FROM FAT, every four hours, and this was gradually increased until the 12th day, when I was permitted to have toast. I was permitted to set up on the 10th day, and on the 11th day I sat in front of the house in a chair a great part of the day and was removed back to the consulate. I was very weak and could not walk but a few feet at a time. The attack left me without judgment, and I unwisely tried to take all the exercise I could, until Passed Assistant Surgeon M. J. Rosenau, Public Health and Marine Hospital Service, returning from Vera Cruz, called my attention to the danger and suggested perfect quiet until my strength returned. I was acting in accordance with the wishes of my medical attendant, and the short walks, boarding and inspecting ships, and attending some wounded men injured in a dynamite explosion, brought on an orchitis involving the left testicle, which gave me much pain for two days, temperature ran up to 103. I treated myself with salines, and lead and opium wash locally. September 30, I had a mild chill, and until Octer 4th (when I was ordered to return to Norfolk, Va.), suffered with malarial infection, which I controled with large doses of quiniue. Fortunately, during the attack of yellow fever, I made my attendants turn me in bed, sit me on bed pan, etc., and took the utmost care to avoid all muscular exertion.

To properly estimate the seriousness of an attack of yellow fever in an American, at Progreso, one has to be familiar with the environments. The only drinking water fit for use is rain water, which is collected during the rainy season and stored in tanks, barrels, etc., often uncovered and not always clean. During my stay there I failed to see a single sample of water not teeming with larva of mosquitoes, vegetable matter, and in many cases animal matter. Except in the hotels, the water used is not even strained, and it has a decidedly disagreeable odor. This water sells for twenty-five cents (Mexican money) per demijohn (holding about 3 gallons). They have a local board of health which requires physicians to report, under heavy penalty, all cases of infectious diseases, but the sanitary condition of the town is very bad compared to towns of like size in the States. This condition of affairs, is not due to the medical men, but to the people as a whole, who pride themselves it seems on living up to the old saying "Things remain always the same in Yucatan." In many instances the customs of the inhabitants are as they were hundreds of years ago.

Method of infection. There can be no doubt that I was bitten by an infected mosquito at the consulate, where I spent nearly all my time, as a case of the disease occurred in the same block some weeks before my arrival, and they use no means to exclude mosquitoes from the sick, even in their pest house.

From July 15, till October 4, (when I left) every case of the disease (seven or eight) terminated fatally except my own. With all honor and respect to the Mexican

physicians, and especially to my attendants, who manifested so much interest, and treated me so courteously and friendly, I feel assured that the high mortality of yellow fever in Mexican ports is due, 1st. To lack of proper nursing and care; 2nd. Absence or restriction on all muscular efforts; 3rd. Too long a delay in giving non-nitrogenous nourishment.

In conclusion, there is no department of our government that looks after its sick in foreign ports with greater care and solicitude than the Public Health and Marine Hospital Service, under Walter Wyman, M. D., Sugeon General.

Report of Some Surgical Cases Treated at the James Walker Memorial Hospital, Wilmington, N. C.*

By Joseph Akerman, M. D., Wilmington, N. C.

Case 1.—Complete transverse lesion of spinal cord in thoracic region. Death. Autopsy.

F. L., male, colored, age 26. Patient brought in by police patrol on the evening of August 3, 1902. All the history that could be obtained was that he had entered a home near the city in an intoxicated condition, receiving a 38-calibre pistol ball in each shoulder. When seen at the hospital, patient was in a stupor and could not be aroused. The whole muscular system was relaxed. Examination showed two wounds, one just above middle of right clavicle, and one just below middle of left clavicle. Neither ball could be reached with probe. A small gauze drain was introduced into each wound and a moist dressing applied. Patient aroused somewhat towards morning and asked nurse for water.

When seen on the morning of August 4th, seemed quite rational but professed ignorance of what had transpired since becoming intoxicated on the previous afternoon. He complained of feeling of numbness in both legs and was unable to void urine or evacuate contents of bowels. More careful examination showed complete loss of sensation over abdomen, and both lower limbs as well as complete loss of power in both lower limbs, reflexes abolished. Abdomen somewhat distended and tympanitic. Examination of chest showed few moist rales at right apex but unimpaired resonance on percussion. At left apex resonance was impaired, but present. Numerous moist rales were heard over this area. Temperature $103\frac{2}{5}$ F. Attempts to move bowels were unsuccessful. Patient vomited several times throughout the day, no blood or fæcal matter in vomitus, condition little changed during day and night.

On the morning of August 5th, temperature began to rise and condition grew worse. Temperature rose rapidly, reaching 109 deg. just before death which occurred at 4 p. m Autopsy August 6, 1902, 18 hours after death. Both abdominal and thoracic cavities opened. Abdominal cavity presented nothing worthy of note except considerable distension of stomach and intestines. Right pleural cavity was free from adhesions and contained no fluid, slight congestion of apex of lung. Ball on this side had grazed tip of lung and buried itself in muscle of shoulder. Left pleural contained about a pint of bloody fluid, whole lung was congested and at apex even hæmorrhagic, but resonant throughout. Ball had passed downward and inward, piercing apex of lung, passing between bodies of third and fourth dorsal vertebræ severing cord and lodging in body of fourth vertebræ.

The unusual feature of the case seems to be the excessively high temperature, the other phenomena being readily accounted for by a complete transverse lesion of the cord. Osler cites cases of temperatures of 108 and 109 in acute transverse myeletes. So temperature of 109 might be due to traumatic myelitis affecting centers of heat control in cord, or by ascending might injure centers in medulla or caudate neucleus.

Case II.—Tumor of anterior vaginal wall enucleation. Recovery.

N. S., female, white, age 23. Family and personal history entirely negative so far as present trouble is concerned. Five years previous to admission patient noticed small swelling on anterior vaginal wall. This grew quite slowly until third month of pregnancy. In January, 1902, began to grow quite rapidly, so much so that some apprehension was entertained that it would complicate labor. She was admitted to hospital, may 26, 1902, and on June 29, was safely delivered. She was advised to return later for operation. On Sept. 21, 1902, she was again admitted. Examination showed a firm elastic mass about size of double fist protruding from vagina. Tumor mass was somewhat pedunculated, line of attachment extending from $\frac{1}{2}$ inch posterior to meatus almost to cervix. Sounding failed to disclose any communication with urethra or bladder. Mass was covered with normal vaginal membrane except for a few erosions due to contact with clothing, etc.

Operation Sept. 24, 1902, hypodermic needle introduced to exclude possibility of fluid contents, none obtained, sound held in urethra as a guide. Circular incision

* Read before the Seaboard Medical Association December 15, 1902.

carried about base of tumor, membrane peeled back by blunt dissection and tumor shelled out with fingers, redundant membrane trimmed off and raw surface covered in by two rows of running cat gut sutures, membrane approximated with a third row just as in an anterior colporrhaphy. Patient experienced very little discomfort, after operation voided urine. Convalescence uninterrupted except for an attack of malaria which was readily controlled by quinine.

On date of discharge, Oct. 18, union was good and redundant tissue atrophied.

The points of interest seem to be the unusual situation and character of the tumor. The consistency and general appearance of the tumor was that of uterine fibroid, but there was not the least connection with the uterus. The rapid growth was probably due to increased blood supply during pregnancy.

Case III.—Contusion of chest with possibly a Fracture of Rib and Rupture of Lung.

D. D., male, white, age 42. Admitted Oct. 20, 1902. History as follows: Patient was run over by heavy wagon of Forepaugh and Sells' Circus, wheel passing obliquely across chest from right axilla to left eostal margin. Patient complained of intense pain on right side which was very much aggravated by effort to speak. Subcutaneous emphysema was present over a large portion of right chest. At first there seemed to be bone crepitus over 6th rib in mamillary line, but manipulation caused such increase in emphysema that the whole picture was obscured. Emphysema soon extended over the whole right front of chest as far back as anterior axilliary line. Percussion was so painful and note so modified by air in tissues that little information could be obtained from this source. Ausculation showed few moist rales over right front. Right chest was strapped with adhesive to restrict motion.

Distressing cough developed after few hours and lasted for a week or more. After first day patient coughed up considerable thin sputum with occasional fine bloody streak. Emphysema subsided in three or four days, and after first week cough and dyspnœa cleared up rapidly. Since then recovery has been uninterrupted except for a severe ulnar neuritis which has almost entirely cleared up. Man is now able to fire furnace at hospital.

The two principal points of interest are the resistance of the thoracic walls to such extreme violence and the difficulty of ascertaining condition of contents of cavity through tender and emphysematous tissues.

Septicemia and the Curette.

By H. Plympton, M. D., Brooklyn, N. Y.

To attempt to break up an old established custom in any line of life is at best, a thankless job, and one likely to call down harsh criticism upon the head of the daring iconoclast.

To attempt to uproot old prejudices existing in favor of a certain line of practice in surgery, and diametrically oppose such practice, is to invite from some adverse criticism of the harshest kind. The only recompense for this is a logical refutation of, or concurrence in the argument advanced on the part of other members of the profession.

This latter is what I hope for, and if I provoke a discussion, or start a line of thought in the minds of half of the readers of this article, I shall have achieved all I started out to do.

Curetting the uterus to remove fragments of after-birth or other debris has been taught in our medical schools from time immemorial, and it is firmly fixed in the receptive and retentive mind of every medical student that the first move following any such abnormal uterine condition, is to cleanse the uterus by means of the curette.

That the organ should be thoroughly and aseptically cleansed admits of no argument, but that the work should be done with the curette, I deny most emphatically.

The majority of cases of death following the decomposition of foetus or placenta in utero, are caused by the use of the curette, and I hold that septicemia may be avoided if a more rational procedure be resorted to.

The condition of the uterus containing septic matter is one of great congestion; the thickened walls being coated internally and over the os with a thick, brown, tenacious mucus.

The congestion is active, and therefore the more dangerous in the event of the admission of septic matter into the circulation.

If the curette is used, denuding the walls of their protective covering, an immediate vaccination takes place with a septic virus, septicemia following in an incredibly short space of time (chemical metamorphosis is marvelously rapid in the circulatory system) and death quickly ensues.

If without using the curette, we can remove the septic matter from the uterus without disturbing the mucus covering, and enable the uterus of itself to expel the coating, we shall have taken a long step forward in the treatment of this class of uterine cases.

The uterus, by reason of its congestion may be made to perform a self-cleansing

act by exciting the exudation of the serum of the blood into its cavity, thereby washing itself out, and expelling all septic matter instead of absorbing it.

This process of exosmosis is induced by a properly combined alkaline solution at a temperature above 100 deg., and a strict avoidance of Bi-Chloride, Carbolic Acid, Formaldehyde, or any antiseptic of an acid reaction or astringent natnre, which would coagulate the fibrine and albumen of the blood.

My method of procedure is as follows:

First. The gentle removal of whatever fragments are lying in the uterine cavity, by means of forceps, care being taken not to tear from the walls any adherent piece.

Second. The gentle flushing of the uterine cavity with the alkaline solution (110 deg.) the reservoir containing the fluid being not more than two feet above the level of the hips.

If the flushing could be continuously administered for a few hours (say two or three), the conditions would be more speedly reduced to normal, but the discomfort of the position of the patient (on a douche pan) prevents this, and a flushing once every two hours with one quart of solution is about the limit of treatment.

For flushing the uterus, I use a small dilating uterine douche, and as there is plenty of room for the escape of fluid and fragments, there is no danger of fallopian colic or salpingitis.

The first flushing is frequently followed by contractile pains and expulsions of any previously adherent pieces, together with much of the mucus.

A tablet of Ext. Cannabis Indica, gr. $\frac{1}{4}$
Ext. Ergotin, gr. $\frac{1}{2}$

every hour till desired effect is produced will contract uterus and alleviate pain.

The bowels should be moved freely, both by enema and catharsis.

During the interval between douches, the patient should be kept on her back with the hips sufficiently raised to permit the retention in the vaginia of as much of the alkaline solution as it will hold.

The rapidity with which this treatment will reduce temperature, relieve pain, stop vomiting and remove offensive odor is marvelous to one who has not tried it. Sometimes two flushings are sufficient to cleanse the uterus thoroughly; vaginal douches being all that are needed subsequently to complete the work.

Uterine congestion is speedily relieved, and the uterine discharge changes from brown, thick bad smelling mucus, to a thin transparent one, accompanied or followed by more or less of a flow of blood.

A reduction in the frequency of the flushings is desirable as soon as a tendency to return to normal conditions begins to be observed, as it frequently will within twenty-four hours. Then simple vaginal douches every three hours with an occasional uterine flushing if symptoms indicate it.

The action of exosmosis (and endosmosis, for there is every reason to believe in the absorption of some of the fluid) is what is desired to relieve the existing congestion, as in a bronchitis, pneumonia, congestion of kidney, congestion of any mucous membrane, etc., and is the most rational means of restoring to normal condition.

I do not wish to be understood as decrying the use of that most valuable instrument the curette, but only the abuse of it to-wit: its employment under such conditions as make it practically a sharp weapon loaded with septic matter, dangerous beyond the poisoned arrow of the Malay, or the fang of the Cobra, and utterly opposed to our modern ideas of antisepsis.

2 Macon Street.

Gonorrhœa in the Male.

By F. R. Millard, M. D., San Diego, Cal.

It is generally believed that either the cause of many diseases has become weakened during the historic period, or that the so-called Christian Nations have to some degree become immune, so that they act with less intensity than they formerly did. It is also believed that since cholera and influenza have repeatedly visited the western world remedies that were once useful in controling disease processes are now decidedly injurious. But no such claim has ever been made as to gonorrhœa. It is the same yesterday, to-day and forever. For thousands of years the festive coccus has warmly welcomed both sexes, regardless of race, color, or previous condition of servitude. We would expect that though details might deffer the basic ideas as to the treatment of a disease so universally distributed and so unchanging would have crystalized into some degree of uniformity. In place of this, one class believe that nature should be permitted to work the cure unhindered. Others that injections alone should be used. Others that injections are always useless and generally injurious. Others that injections and internal specifics promise most for the present comfort, as well as for the future safety of the patient. With all these open before him and he free to choose, it seems that no doctor need ask where am I at? We all know that it is as impossible for the doctor to make a misstatement about the work

done with his remedies as it was for the immortal George Washington to lie about the work done with his little hatchet. Isnt it a bit curious, that as soon as the human doctor has cured a few men of a clap, he is irresistably impelled to tell his less informed brothers how to do it. If a less informed brother decides to learn the tricks of the trade, he should look well to his longitude, especially if any of the remedies are made from silver. Thus, a doctor on the Atlantic Sea Board says if we do not inject our gonorrhorics with solutions of protargol we are worthy of severe censure, if indeed, we are not guilty of criminal negligence. Because by this means we can ordinarily expect a cure arter 4 to 6 weeks of treatment. Under another meridian nearer the middle of the continent a surgeon, whose list of titles rivals the fourth commandment of the decalogue in length, expects protargol to cure his patients in 4 or 5 days. However, he hedges a little and says "if they are not well then, other means must be used." Unfortunately he does not say what those means should be. Now a doctor on the Pacific Sea Board comes to our aid, and says he has never found it necessary to use protargol for a longer time than one week, and sometimes he cures a patient in one day. When our Atlantic brothers appreciate how longitude reinforces protargol, we expect that they will send carload lots to be cured under the favorable meridian. A little cyphering will show how economical this would be: Six days out, one day to engage the doctor, seven days for a cure and six days to return. Twenty days at the most with a possible 13 against 28 or 42 in the effets and stagnant east. But if these brothers earnestly desire to consistently pray, give us this day our daily bread, they should earnestly strive to prevent this knowledge from becoming the common property of the laity, for if it should so many men will buy a clap for the sake of the outing that the railroad will have to lay a double track across the continent to care for the traffic. It goes without saying, that an efficient remedy may be inefficiently used. Probably permanganate of potash has suffered more in this way, than almost any other remedy that we have. It is not claimed that it has no equal, but it is claimed that when properly used, it has no superior, either for celerity or certainty of cure, and that there is no efficient remedy that is not more expensive. Injections through the 2 or 4 dram syringe are not useless, but copious irrigation by the Jenny plan with hot solution of the permanganate increases its efficiency many fold. But this plan is deficient in three directions, each one of which in its way and degree, prevsnts the drug from exerting its full curative power. Ideas may differ as to the relative importance of these defficiences, but I am inclined to rank them as first, inefficient distention of the urethra, second insufficient time allotted to each seance, and lastly the irrigation is given with the fluid at a constantly decreasing temperature, whereas it should be at constantly increasing temperature so that at the end of the seance, the limit of tolerance is nearly or quite reached. That these deficiencies are not theoretical was proven by assembling an apparatus in which all were eliminated, and the success over the Jenny plan was almost as great and that was over the 2 dram piston syringe. If we could use one thorough irrigation with water at a temperature of 150 deg. F., one would suffice. This we cannot do, but every increment of temperature above 110 deg. F. decreases the vitality and the virulence of the gonococcus. Possibly some gynecologic specialist may be willing to take a hint from a general specialist. When it has seemed advisable to irrigate the vagina with a large quantity of water, using it at a constantly increasing temperature has in my hand proved to be decidedly advantageous. Of course an outflow tube is necessary, because the vaginia will tolerate a much higher temperature than the external parts. This may be stale news, but I have never seen it recommended. While for office use the apparatus was a success, it was no more efficient than, and not so well adapted for home use by the patient as a plan that will presently be described. Still I believe if the right man would patent the apparatus and bring it before the profession, every doctor who treats many patients in his office would install one. It need cost but little more than a fountain syringe, over which it has several advantages and only lacks its portability. When the following plan was devised there was no syringe on the market that met my want and one was improvised by taking the nasal tip from the kit of a family syringe and affixing it to a 2 ounce syringe bulb and I then had the counterpart of what is now known as the Atlas Nasal Syringe, except that the nozzle was glass. Soon afterward hard rubber ones were procurable, and have since been used. The essentials are a bulb with a capacity of about 2 ounces, with a blunt hard rubber nozzle (soft rubber is not desirable). It is impossible to expel all the air by a single compression, but when such a bulb is released sufficient injection will be taken in to fill any urethra. Besides destention can be more evenly continued than with a smaller one, and the

hotter the injection and the greater the distending force the more penetrative is the remedial effect. At some lesure time any old garment is torn into strips, and a number of balls about half as large as the fist are wound and a cast of twine thrown around them to keep them in shape. These are stored in the drawer with the syringes and when a man calls for treatment he is given one, a syringe, an alcohol pocket stove and

℞. Permanganate of potash gr. lxiv.
Distilled water ʒviii

M. Sig.: Injection. Use as directed 3 or 4 times a day.

He puts a teaspoonful in half pint of water at 102 or 103 deg. F., and after cleansing the glans and prefuce fills the urethra to the cut off muscle 3 or 4 times, retaining each filling a short time and then letting it escape. He then seats himself in a hard bottomed chair, and places the ball as far back under the perinum as he can and prevent any injection entering the bladder. He then distends the urethra to the point of tolerance 3 or 4 times and at last keeps it destended until the hand tires from compressing the bulb. Every day he uses the water a little hotter, so that in five to seven days it is as hot as can be borne. Every second day he increases the amount of injection ¼ teaspoonful until no discharge has been seen for two or three days after no increase is made, but the distentions are regularly continued for a week after which one is dropped each week until one a day which is continued a week or two partly to make assurance doubly sure and partly to keep him out of mischief for a longer time. For me this has done away with making applications to the anterior urethra through the endoscope. Every man who is being treated for stricture of the anterior urethra is given such an outfit and distends his urethra with a hot solution that does not cause annoying irritation three times a day until instruments are no longer needed after which it is done twice a day for a month longer. This plan has been in use 15 years and so far as known no stricture so treated has returned. Without saying that during the acute stage internal specifics are or are not permissible, there is no doubt but that when it is passed they are always in order. The following perscription has proven more generally satisfactory than any other. The capsular form may be more elegant, but patients seldom object to taking this and it is less expensive than any of the proprietary preparations that can compete with it for efficiency.

℞. Tragacanth (pwd) ʒss
Citrate of potash
Oil of Wintergreen (true) aa ʒss
Oil of Sandalwood (English) ʒvi
Spirits of turpentine ʒii
All by weight

Aromatic elixir sufficient to make eight fluid ounces. M. S. A. Sig.: Shake well and take a teaspoonful three or four times a day.

An easy way to prepare this, is to rub the citrate and tragacanth in a mortar until well mixed, transfer it to an 8 ounce bottle, add 5 ounces of the elixir and agitate for a short time then balance it on the scales and add the oils and turpentine and lastly the remainder of the elixir. The synthetic oil of wintergreen should not be used, as it is likely to cause abdominal or vessical distress. The jobbers' price for the English oil of sandalwood is nearly double that for the German oil. But there is no economy in using the cheaper oil, because in order to get equivolent results a proportionately larger amount must be taken and this often interferes with the appetite and the digestion, which the perscription as written seldom does. Bumm, of Basel, no mean authority on gonorrhœa says of Balsom Copabia "it is neither a germicide nor an antiseptic, but I prescribe it on general principles, because it so often gives me such astonishingly good results." A less expensive and equally efficient remedy may be got by omitting the oil of sandalwood and turpentine from the above prescription and adding 2ʒ of Balsom Capabia. Many patients prefer this to taking the Balsom in capsules.

The Value of Palpation in Certain Abdominal Diseases.*

By Dr. F. T. Meriwether, Asheville, N. C., Surgeon to Clarence Barker Memorial Hospital, Member Sou. Surg. and Gyn., American Med. Associations, etc.

Palpation is of the utmost importance in diseases of the abdominal organs. Of itself, it furnishes the most valuable data we have in diagnosing disease in this part of the body, particularly those diseases we call surgical, and of those only, I will speak.

The value of palpation and the correctness of its results depends in a large measure upon the expertness and experience of the individual examiner, one man palpating with ease what another cannot feel, The educated touch will detect slight malformations and pathological changes with almost as much certainty as though seen with the eye.

* Read before the Buncombe County Medical Society.

Much depends upon the condition of the abdomen in the patient. Those with large, thick, pendulous walls are extremely hard to palpate with satisfaction, as are those thin, nervous, sensitive individuals, whose muscles involuntarily contract, rendering it almost impossible to feel anything within the cavity.

There are certain general rules to be observed in palpating the abdomen, though as I said, everything depends upon practice, experience and the education of the sense of touch in the examiner's hands and fingers. In the first place the confidence of the patient must be obtained, that by voluntary effort the tendency of the muscles to contract, may be overcome.

The patient should, as a rule, be on the back, though the lateral posture is necessary in some instances, while for the kidney, the erect posture, leaning against the wall, supporting the body with the hands, thus relaxing the abdominal muscles, or sitting, inclined forward, is of great assistance.

In some cases, anesthesia is necessary to obtain relaxation of the muscles. It is best to have the bowels moved before attempting palpation, for an overloaded colon may be very deceptive, the fecal matter leading one to suppose he had a more or less solid tumor to deal with. If the examination is made in the dorsal decupitus, I prefer to have the limbs raised, flexing both legs and thighs, though some very skilful observers, Boas, for instance, do not so advise.

Beginning slowly, the right or left hand, depending upon the preference of the observer, is gradually, gently but firmly pressed into the abdominal walls, using the full hand, examining with the hand and balls of the fingers, not the tips. It is best to use both hands, one palpating, the other making the pressure upon it, in this way avoiding any muscular effort in the palpating hand, thus getting the full benefit of the sense of touch in it.

By having the patient take deep inspirations, then at the conclusion of the expirations pressing the hands deeper into the muscles, the posterior walls of the abdomen is reached. The skin and then the anterior abdominal wall is slid over the subjacent parts, feeling rather with the hands than with the finger tips, for these are apt to cause muscular contraction.

By diverting the patient's attention, pain that may be complained of upon slight pressure, disappears, and deep pressure may be made with but little discomfort.

The face of the patient is the best guide as to pain, as expressions of pain are misleading in most persons.

Contractions of segments of the recti muscles, so often seen, particularly in nervous individuals, may be proven by having the patient raise the head, when the muscle still further contracts.

In very thin subjects, the projecting vertebræ often simulate a tumor, but their location and relations, particularly to the aorta, should make it easy to determine their true character.

It is rather difficult to palpate the small intestines, though the large bowel, even in health, may be followed and outlined. It is almost impossible to palpate tumors upon the posterior wall of the stomach, while those on the anterior wall may be easily felt. Tumors of the pylorus do not move during respiration, while tumors of the stomach proper are displaced downward during inspiration, though adhesions or marked dilatation of the stomach may so fix gastric tumors as to make this misleading. Pyloric tumors, however, are quite movable under the examiner's hands. Downward movement of a tumor in the pyloric region during inspiration, usually means a connection with, or attachment to, the liver or gall bladder.

Gastric ulcer shows a small tender spot a little to the right of the median line, and a corresponding spot posteriorly about the angle of the scapula. Pancreatic tumors are usually felt just above the umbilicus.

An enlarged lymphatic gland in the gastro-colic ligament may readily be mistaken for a small tumor of the stomach, as may be the head of the pancreas, in subjects much emaciated and relaxed.

If splashing in the stomach is found as long as three hours after eating, the presumption is a dilatation or prolapsus of that organ.

In malignant diseases of the liver, fixation of the umbilicus is often a very striking symptom. The thrill of a bydatid cyst is pathognomic and cannot be mistaken for anything else.

The gall bladder, when enlarged or thickened can readily be palpated, its pyriform shape being very characteristic, as is the shape of the spleen.

In acute peritonitis, great tenderness is elicited upon the slightest pressure, though if there be marked sepsis, tenderness is often absent.

The shape of the kidney is diagnostic and cannot be mistaken unless very much enlarged. Perinephritic abscess or Pott's disease may be palpated with certainty upon deep pressure. Enlarged kidneys may or may not move with respiration.

Intermittence in the size of a kidney tumor is often found in hydronephrosis, free urination taking place after the reduction in the size of the tumor by the escape of

urine through the somewhat patulous ureter.

Foreign bodies in the intestines are rather movable, distinguished from enlarged or retro-peritoneal glands. Their feel and consistency are rather diagnostic.

In tubercular disease of the abdomen, the enlarged mesenteric glands are felt distinctly, provided there is no large amount of fluid present. Even in pulmonary tuberculosis, without abdominal involvement, in Hodgin's disease and other conditions, these glands may be felt markedly enlarged. The site of a tubercular ulceration of the intestine may be determined by the tenderness, and feeling the thickening of the coats of the intestine. This thickening often extends for quite a distance around the ulcer, and may almost be of such a character as to lead one to think there is a tumor present, and may particularly mislead one when in the right iliac fossa, simulating very much a rather deep-seated appendicular abscess. I recently had a case of this character, where the cecum and appendix were the seat of tubercular disease, the walls of the cecum being about one-fourth of an inch thick, the thickening being for a space of about 3 inches, palpation seemingly presenting an obscure tumor of this region.

In intussusseption the very characteristic sausage-shaped tumor can be easily distinguished and is almost pathognomonic. In ileo-cecal invagination this tumor will be felt, not in the region of the cecum, but rather upward and to the left of the umbilicus, following the course of the transverse colon. In a case I saw this summer, diagnosed by one of the best surgeons in the South, as a probable appendicitis, a small sausage-shaped tumor could be felt below and internal to the cecum, but her condition being very unfavorable, her case presenting other complications, such as a fibroid of the uterus, and no absolute obstruction, no straining and no passage of blood, I could not believe it an intussusseption, and we did not operate. A post mortem showed a chronic invagination caused by an undetermined form of an intestinal polypus and admitting the passage of both gas and feces.

In volvulus, or any other form of intestinal obstruction, the intestine may be felt distended down to the point of obstruction, ending rather suddenly at this point. The gases are not easily displaced, and gurgling, when developed, is felt to occur only in this distended portion of the bowel. The appendix may, when diseased, be palpated with ease, and under favorable conditions, even in health, in a large majority of the cases. Tenderness over McBurney's point, which corresponds in most cases to the opening of the appendix into the cecum, or according to Treves, at Munro's point, is rather characteristic of the disease. It is true, as Treves has pointed out, that this tender spot may often be detected in healthy individuals at the entrance of the 11th dorsal nerve into the sheath of the rectus muscle, but in these cases the tenderness is a superficial one and is not much greater upon deeper pressure. This tender spot is about $\frac{1}{2}$ an inch internal to McBurney's point and may be found in many nervous individuals, who fear appendicitis, but it is of a different character to that from a true appendicular tenderness. In my experience the point of the greatest tenderness is apt to be rather below and internal to McBurney's point, though this varies with the position of the appendix and of cecum.

We are all familiar with the rigidity of the right rectus muscle in serious disease of the appendix, but we also find the same right sided rigidity in gall-bladder disease, and often in septic conditions of the right kidney and ovary. I once saw a marked case of this kind in Murphy, N. C., in which there was a marked rigidity of the right rectus with a large tumor over the region of the appendix, the symptoms in every way pointing to a large walled-off appendicular abscess, but its size, its mobility on inspiration and by the examiner's hands, its bulging into the lumbar region and its extension upwards to the liver led me to diagnose a pyonephrosis, which I operated upon successfully.

Appendicular abscesses are not, as a rule moveable; their walls, being formed by adherent coils of intestines, are absolutely fixed. I have seen a large number of appendicular abscesses of long standing, in which the diagnosis could only be made by palpating the tumor, some of these cases having been treated by eminent men both at home and abroad for gastric and intestinal disturbances, but whose abdomen had never been examined, I have had three cases of this kind this year, that had been treated both in New York and in Europe, all of whom I operated upon and proved my disgnosis.

In cases of gangrenous appendicitis, without pus, the appendix may often be felt standing out stiffly from the cecum, feeling like a hard cord.

If the appendix can be felt thus rigid, whether movable or not, disease of some character must be present.

While I do not claim that by palpation, we may always make an absolute diagnosis, it is, to my mind, of the greatest assistance in clearing up what may otherwise be a very

obscure case. Cultivate this sense of touch, and while we may not all reach the same dexterity and sensitiveness, we will have added to our aid in diagnosis an invaluable accessory.

Mastoiditis.*

By Clarence Porter Jones, M. D., of Newport News, Va., Oculist and Aurist to the Newport News General Hospital, Dixie Hospital, Hampton; the Hampton Normal and Agricultural Institutes; Member of the Newport News Medical Society, Elizabeth City County Medical Society, the Medical Society of Virginia, North Carolina State Medical Society, the Seaboard Medical Association, etc., etc.

I am aware gentlemen, that the subject chosen by me for presentation to-day, Mastoiditis, is one which has been for the past few years frequently presented to the various Medical Societies throughout this country. The subject is for this reason, none the less worthy of your attention.

The results of the modern exploitation of what was formerly known as mastoid disease is the crowning glory of Otology as we know it to-day. The mastoid bone no longer remains a mysterious touch-me-not. It stands in definite relation not only to the middle ear cavity, but also to the cerebrum, cerebellum, and the great venous intra-crainal bloodways the Siunses.

The Mastoid Antrum is no longer regarded as a simple air cell. Its existence being co-equal in point of time to the middle ear itself; its lining membrane being of the same origin with that of the middle ear attic.

For practical purposes, all the purulent diseases of the mastoid take their origin in diseased conditions of the naso-pharynx, whose mucous membrane passing along the eustachian tube into the atrium of the middle ear, thence to the attic, thence to the mastoid antrum, which stands in direct connection with its children of a later hour the mastoid cells.

The infectious material from the nasepharynx, having once reached the middle ear attic, produces there inflammatory conditions, the outcome of which no man can tell untill the patient is well. The middle ear attic and mastoid antrum are two adjoining chambers with a narrow passageway, the aditus, in reality making them one cavity. In the attic we find the head of malleus, the body of the incus and their suspensory ligaments wrapped in a continuous sheet, the mucous membrane. The purulent infection having once found its way into the folds of the sheet is provided in its rapid increase with most insufficient drainways; hence it comes that the most excruciating form of earache with which we are acquainted has its seat here.

The natural outlet for this pus under pressure is by a rupture of Shrapnell's membrane, the uppermost, and thinnest portion of the drum membrane. Unfortunately in most cases this membrane does not yield rapidly enough, and the pus then attemps to separate the periosteum of the adjacent portion of the external auditory canal, through which it may eventually find an exit by a fistulous mouth some distance from the drum head.

While this is going on, some of the pus, as well as the inflammatory process have extended into the attic's sister chamber, the antrum. If the drainage remains imperfect, or the exit be too long delayed, this inflammation in the antrum involves of necessity the cells of the mastoid process. These cells may be likened to a number of various sized minute eggs, some large, some small, all opening into the adjacent eggs, and the uppermost into the antrum. Should the infectious material thus find its way into one or more of these cells, and by its virulence overcome the resisting power of the cell walls, we have first empyema of the mastoid, later osteitis. The former process may get well if it be possible for the pus to drain away through the antrum, aditus, attic and hole in the drum membrane. The latter process, that is osteitis, rarely disappears unless it has the assistance of the surgeons chisel and spoon.

On the contrary, partly by a process of minute reinfections, partly as a result of the decomposition of the pus already retained, the adjacent structure succumbs to the advancing inflammation. At times this inflammatory process works its way through the external table of the mastoid process, giving rise to the well known infiltration abscess beneath the periosteum over the mastoid process, at times it bursts the inner aspect of the mastoid tip forming abscess and its sequelæ in the deep structures of the neck.

At other times softens, and eats away the bone lying about the sigmoid sinues, whose wall unless more or less speedy relief comes, softens, resulting in sinus thrombosis, with its host of horrid progeny. It may also soften the tegmen antri, or roof of the Antrum, giving rise to extradural abscess, or begets cerebral abscess or meningitis. The picture thus is no simple one.

The picture is one of unceasing interest as our knowledge of the mastoid possibility increases.

Contemplating for an instant this pic-

* Read before the Seabord Medical Association, December 15, 1902, Wilson, N. C.

ture, we see how plainly our duty it is in the first place to prevent these results, in the second place to remove them as soon as we have discovered their existence. In the large proportion of cases, we can prevent mastoid disease, by an early free incision of the drum membranes, including always Shrapnell's membrane. We should not wait for a bulging of the drum membrane ere this is done.

Fever, great pain, and marked redness of the drum in the region of Shrapnell's membrane is our indication for making drainage. When once osteitis of the mastoid has developed, and this in most cases can be readily determined by the existence of continued subjective pain in the mastoid, of pain on pressure over the mastoid bone with more or less fever, the degree of fever depending to a large extent upon the amount of drainage, and swelling or infiltration abscess, over or about the surface of the mastoid. When these symptoms exist, delay is useless. The mastoid should be opened, and all softened bone with its granulations and pus be removed.

In many cases it becomes our duty to open the mastoid long before any external swelling over the external surface of the mastoid makes its appearance.

In all cases where the mastoid is opened it should be our duty to examine the antrum, the source of the mastoid woes. Its walls should be examined and freed from granulations. Naturally when the symptoms, (and our paper of necessity cannot go into these) point to the co-existence of sinus thrombosis, meningitis, intra and extra cerebral and cerebrallar abscess, our operation must be the more thorough and extensive.

It may seem a trifle strange that the present treatment of mastoid disease should be as it were a child of only to-day, and is born of what one would now consider of first importance in any operation, an exact knowledge of the anatomy gross and minute of the temporal bone.

This has been long in unfolding, but has now about reached perfection. In conclusion, in considering the treatment of mastoid disease, every practitioner of medicine should bear in mind that it results from so simple and so often neglected disease as earache, that its prevention saves in peculiar cases, is possible by an early proper incision of the drum. That when once established, and the focus of osteitis has come into existence, delay is worse than useless. This focus must be reached and removed, never forgetting to examine the mastoid antrum, the operation to be thoroughly and aseptically done. I thank you for your patience.

118 Thirty-second Street.

Monograph Read Before the West Chicago Medical Society on a New Method of Delivery by the Obstetrical Tractor.[1]

By E. D. St.-Cyr, M. D., President of the West Chicago Medical Society, Member of the Illinois State Medical Society, and of the Chicago Medical Society, late Physician at the Central Free Dispensary.

Gentlemen and Colleagues:

[2]In this, my presidential address to your learned body, I will speak to you about some original research which I have made in the field of obstetrics, and relate to you some of the practical results which I have attained in this field.

Since the invention of Chamberlain, A. D. 1706, all those concerned in assisting parturient mothers have regarded the obstetrical forceps as a dangerous necessity, a dreaded means to an end to be tolerated for the lack of something better. We, as physicians, appreciate them at their true worth. Of our professional knowledge, we realize that they are, in innumerable instances, faithful allies in saving the lives of mothers and in bringing forth children alive and perfect, who otherwise would perish. Allowing all credit for the good of which the forceps are capable, they are also a potentiality for evil. There is always the dread presence in the physician's mind of the deadly record wherein forceps have proven a cruel means of accident to mother or child or both. Numerous are the cases where they have lacerated the mother's parts to a distressing extent, ruining her health, at times depriving her of life; again there are the sad instances where they have caused cranial fractures and depressions and where their use has resulted in idiocy, insanity or death, or perhaps cutaneous lacerations and abrasion, resulting in lifelong disfigurement to the child. From their use, a new branch of medicine, Gynæcology, has practically been given birth.

In an extensive collection of 985,446 cases of labor,[3] forceps delivery was fatal to mothers: with British practitioners 1 death in every 29 cases; wilh French and German 1 death in every 34 cases; as regards the children, in England 1 death in every 4¾ cases, on the continent of Europe 1 death in every 5¾ cases. True these mis-

1 President's annual address, Dec. 5, 1901. Re-read by request Dec. 19, 1901, and March 6, 1902.

2 That part of the monograph which did not relate to the instrument has been omitted in this reprint.

3 Meadows, page 222.

fortunes make a small percentage in the grand total of childbirth, but the apprehension will not down, that your next case may add one more to the statistical list.

Our asylums' statistics show to an appalling degree the great number of human beings born insane through the instrumentality of the forceps. The question then arisee, how can the parturient mother be helped actively and materially without the agency of the useful but perilous forceps? By reasonsng along these lines, I was forced to admit (a confession, no doubt, shared by the great majority of my professional colleagues), that without the forceps we were but poorly equipped with the means of relief to suffering parturient mothers.

It will be seen that with a method of delivery as powerful and as rapid as the forceps, but not as injurious the ordeal to womankind, delivery, can be made shorter and comparatively painless, as but a short period of anæsthesia is required if we have at our service a *powerful*, *rapid* and *safe* instrument.

We all know how momentously uncertain is the answer to the physician's soliloquy—"Shall I risk possible fatal injury to this mother or child, or both, to relieve this condition of torture?" yet, with what alacrity would we act if the only objection to the forceps could be removed—if they were not perilous, injurious.

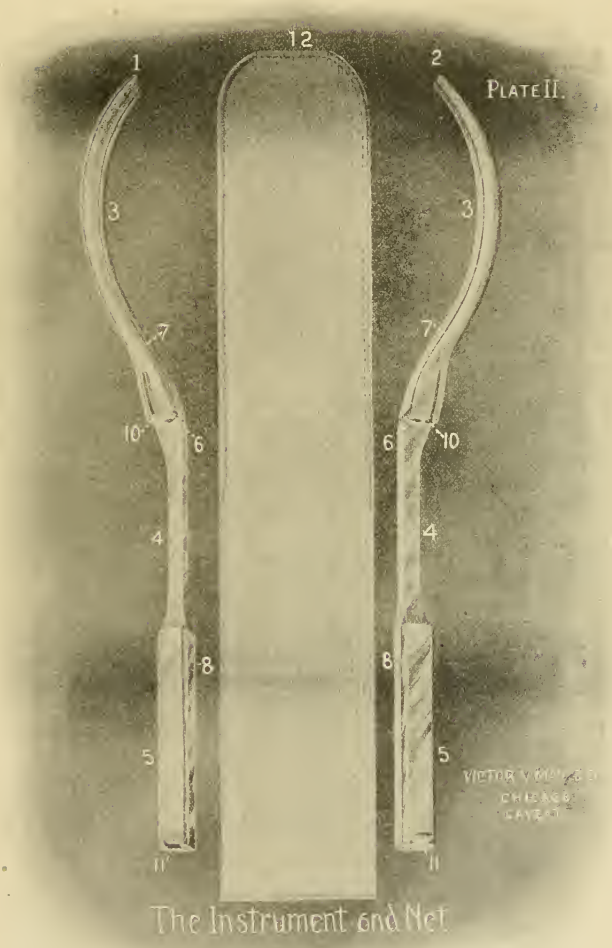
As often as physicians have used the forceps, how few they are who ever compared the dimensions given the forceps by the artisan, with the size given by nature to the child's head.

Forceps:

Separation at tip, $\frac{1}{2}$ to 1 inch.
Diameter of cephalic curve, $2\frac{1}{4}$ to 3 inches.

Head:

Bi-parietal, $3\frac{3}{4}$ inches.
Bi-temporal, $3\frac{1}{4}$ inches.
Occipito-frontal, $4\frac{1}{2}$ inches.



1—Male Blade. 2—Female Blade. 3—Operating Extremities. 4—Shafts. 5—Handles. 6—Openings of Groves. 7—Slits. 8—Handle Locks (visible on Plate III, "B"). 10-00—Male and Female Locks. 11—Securing Locks for 10-10. 12- Net.

By studious comparison one must conclude that the forceps enlarge the head in the pelvic antero-posterior diameter, which is unscientific and bungling and contrary to nature's designs.

Earnest mental process has in the past conceived other forms of instruments by which traction could be made, only to be discarded because invariably associated with too much localized pressure, or having insufficient adhering power to make them perfect instruments.

I have, during the past year, repeatedly used, with gratifying success, the instrument which I now present to you. My use of it has been sufficient to warrant me in presenting it to you as a complete and perfect instrument, and, in my opinion, an instrument far superior to the obstetrical forceps, as no injury can be inflicted by its use and with which any amount of force can be exerted.

I have called this instrument "Obstetrical Tractor." Its component parts are a net (silk or cotton), and two blades, somewhat of the shape of those of the forceps (Plates II and III), retaining in the hollow of the blades the loose border of the net in such a manner that by making the circuit of the head with these blades, it is caught in the net (Plates IV and V), the blades are locked and traction is exerted on the net, not on the blades, as in the case with the obstetrical forceps, which is the cause of their dangerous effects (Plates I, IV and VI, "D"). The pressure is thereby diffused over the whole surface of the head and renders injury impossible (as I will soon explain by illustrating on the obstetrical manikin), and conserves the possibility of exerting the force of traction to whatever degree the case may demand. To explain the principle clearly, I will state the following fact, though of daily occurence probably unnoticed by most of us: We have all experienced, when pulling from the cuff, the difficulty of taking off the sleeve of a tightly fitting and tightly knitted undergarment; have we not at that moment felt that our arm was being dislocated, but that the pressure exerted by the contracted fabric upon the arm was not painful nor to be compared with the force which could be exerted by traction? were not these forces out of proportion one to the other, although dependent one upon the other? The reason being that the pressure is widely and equally diffused, while the traction is concentrated at one point. To prevent the slipping of the net, I have conceived the method of constricting the border of the net, above the greater convexity of the head of the child.

The philosophy of the force of contraction which takes place in the net is explained in the following argument: Any woven, knitted or elastic tissue, when elongated by pulling on it, contracts in all its other dimensions—as with rubber, for illustration. It cannot be otherwise; *matter is not added to by stretching it.* If a given quantity of matter is made longer without addition to its quantity, *the lengthening must necessarily be at the expense of the other proportions of the given quantity of matter.* Thus, if a cable has 1,000 threads, and these threads are so interlaced together that they can be made to spread over a wide surface in individually tortuous, zig-zag fashion, when the cable is pulled upon, each individual thread is forced to a straight position and their union thereby contracts the structure which they form. If the cable would break at 1,000 pounds, and each thread was of an equal strength, each thread would necessarily have a tension force of one pound. Thus the traction power of such a net would be 1,000 pounds, but its compressing power would not be 1,000 pounds, and for the following reason: The force of compression is directly produced by the force of traction exerted, but is produced at *right angles* to that force, and is therefore but a fraction of the force producing it. Being diffused on a wide surface, it is not great at a given point, for at a given point there is the pressure of but a few threads. It is the great number of these individually feeble threads which produces the great force of compression and purchase present in this net method.

The more the traction, the greater becomes the length; the greater the length, the lesser the width; the lesser the width, the lesser the circumference of the net in all its parts; the lesser the circumference, the greater the even pressure, purchase and moulding of the contents of the net, the head of the child.

The principle employed in this instrument reminds me of the following illustration: It is like having a strong silk cable attacked to the head of a child, its method of attachment being so diffused as to permit us to use whatever amount of traction the case may require without any possibility of injury to the child or mother.

I can now best illustrate the instrument and give you the *raison-d'etre* of its different parts by referring to differently marked parts of the instrument and explaining their use. To obtain the easy and proper application of the net over the presenting head, to have it properly secured, and to be able to take away the blades at the will of the operator, are the essentials to be explained and which are executed by this instrument.

The Net: (Plate II.) The net is made

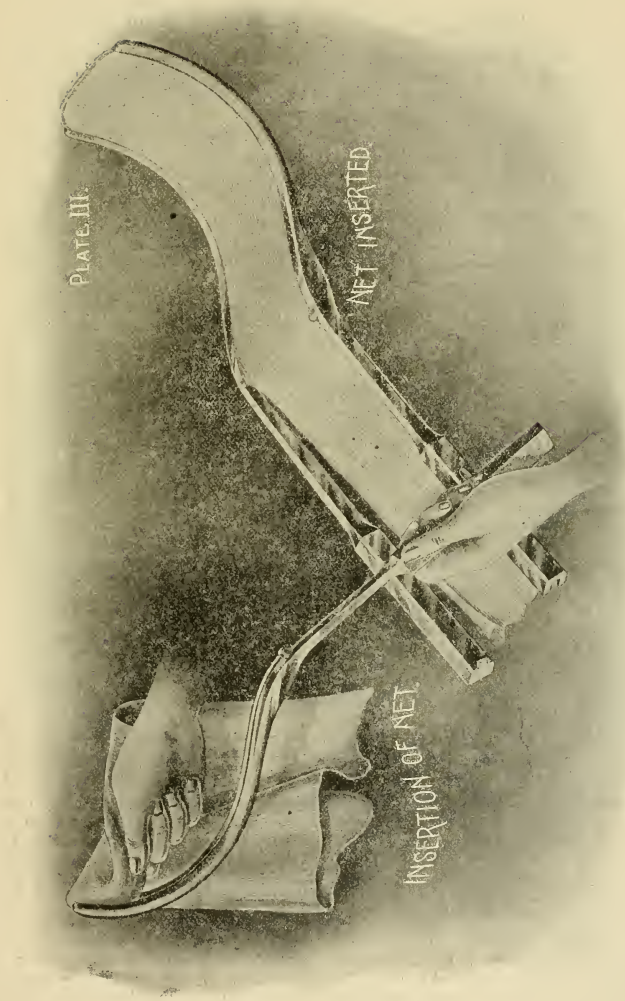


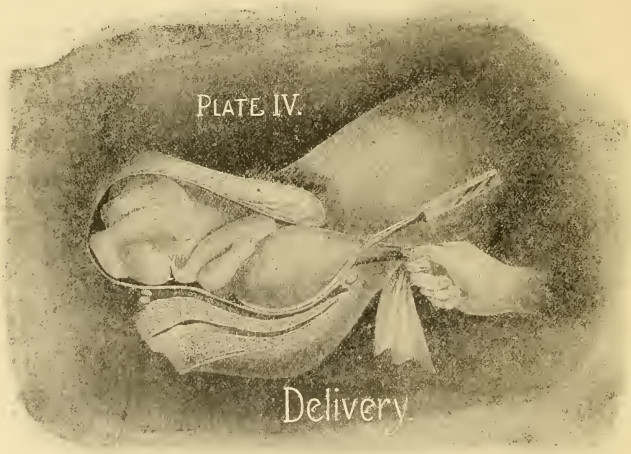
PLATE III.
NET INSERTED.
INSERTION OF NET.

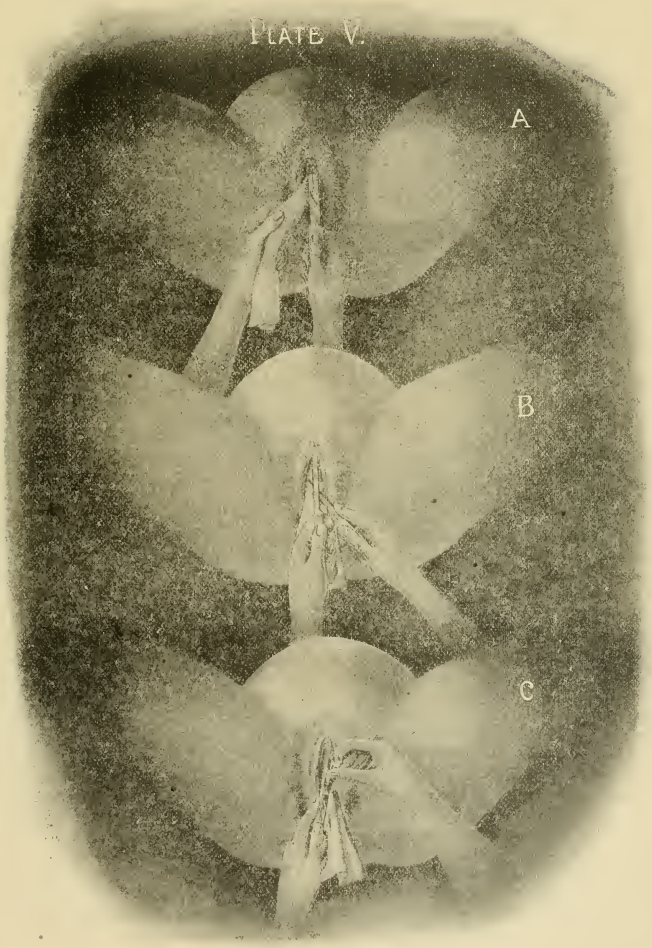
of cotton, silk or other elastic fabric, and a thick, strong, non-elastic tape or core is fixed at its upper end. The whole is prepared and treated like our surgical antiseptic gause dressing.

The Instrument: (Plate II.) The instrument is composed of two blades (1 and 2), having each an operating extremity (3 and 3), a shaft (4 and 4), and a handle (5 and 5). Each operating extremity has the cephalic curve of the ordinary forceps and is 6½ inches in length. (Each blade is provided with an internal cavity for the purpose of each receiving one-half of the upper half of the net, allowing it thus to unfold from its center during application). A grove or canal (6 and 6) is for the purpose of receiving the thickened border of the net or tape, allowing the exit of the net through a very narrow slit (7 and 7), making it thus possible to remove both blades from the net and vagina at the will of the operator. The small lock (8 and 8—Plate III, "B") is for the purpose of securing the blades together, their introduction is thus made easy. Lock (10) is for the purpose of locking the instrument at (10) after the complete circuit of the head has been accomplished by the blades, thus securing the strong union of the net at the sacral curve. The shafts (4 and 4) have the proper curve to render as easy as possible the circumvolution of the operating blades or extremities (3 and 3) around the head. When locked they give room for the passage of the outward extremity of the net, if downward traction is desired. The handles (5 and 5) are fixed in the shafts; their lock at (11) is to secure lock (10 and 10), thus securing the whole instrument ready for operation.

The Operation: The blades, with net inserted, are asepticized by boiling, locked at (8), lubricated, introduced below the pubes (Plate V, "A"), unlocked, circumvoluted to the sacrum (Plate V, "B" and "C"), locked at (10 and 10 and 11). The border is pulled tightly. Traction is then exerted at will on the net, not on the blades (Plate VI, "D"). To lock the blades after circumvolution, they may be pulled out slightly, locked and re-inserted.

When the head has reached the perinæum, by simple traction the blades can be removed (Plate VI, "E"), as they slip off the net, nothing holding them—they hold the net, and are not held by it. The net passes through a slit, which holds it firmly by its border (Plate III, "A"), this border being made thick, so that it will not pass through the slit; thus it is that the net, by the continuance of its thickened border when emerging out and at the end of the slit, can be made to suit any size of head. By this arrangement it is seen that the operator has perfect control over the easy application of the net, its size, its adherence, its union, the direction of traction necessary in any given case, and the extraction of the instrument (either the applicating blades alone or both applicator and net). By pulling on the inelastic, non-resilient, non-tensile border, of the net from the outside world, perfect control is obtained over the most internal parts of the net at its distant end, above the greater





A—Introduction. B—Right Circumvolution. C—Left Circumvolution.

convexity of the head; it is not necessary to pull directly on the non-elastic border of the net to obtain the necessary constriction, simply holding the net steady and pushing on the applicating blades is sufficient to accomplish the same result.

When the applicating blades are removed, then only can the net be removed; thus, without the blades, if the net is not removed, delivery can be helped or not as the attendant may deem best to help or retard it (Plate VI, "F"); because of the head being at the perinæum, he may want to prevent it coming too fast, so that no tear will occur at the outlet.

The force exerted by traction on the net is not in direct line with the cord forming the thick border of the net. It pulls on the side of the cord, at *right angles* to it, and therefore produces but very slight tension on its length; a fact which enables us to apply whatever force may be required during delivery, without the possibility of rupturing the border of the net.

The simple and cheap construction of the net, a piece of cloth with a thickened border, makes it possible to use it in but one case and then discard it.

The border of the upper part of the net may be made flat. Providing that it is made of strong tissue, the net need not be completely surrounded by a thick non-elastic border; at the top the net tissue need have no border, for, if the thick border goes up far enough, the head of the child, through its own size, will prevent the net from slipping. When the tissue has stretched as much as it can, it becomes non-elastic.

The net can be given a variety of shapes. Its border can be lined with a tape, besides containing a round cord; the smooth surface of the net will allow the net to slide readily in the slit and render the border stronger. It can also be provided with two cords or thickened borders.

Many forms of applicators or blades, as well as many forms of nets, can be devised, but the essential necessities are, first, a slit for the proper control over the application, the size, securement of the net, and the extraction of the blades, and second, a net, elastic and strong, having a thick securing border, non-elastic in nature.

By having the cavity in each blade retain half the net respectively, and, each, half of the tape or thickened border, the spreading of the net over the child's head offers no friction, no resistance, as the net unfolds itself from the cavities in which it is placed without resistance and as rapidly as the case requires, that is, as rapidly as the blades are circumvoluted around the head of the child. This cavity is not an absolute necessity, the instrument is smaller without it and applies the net just as well, for the blades are much smaller than those of the obstetrical forceps which are applied to the same parts for the same purpose.

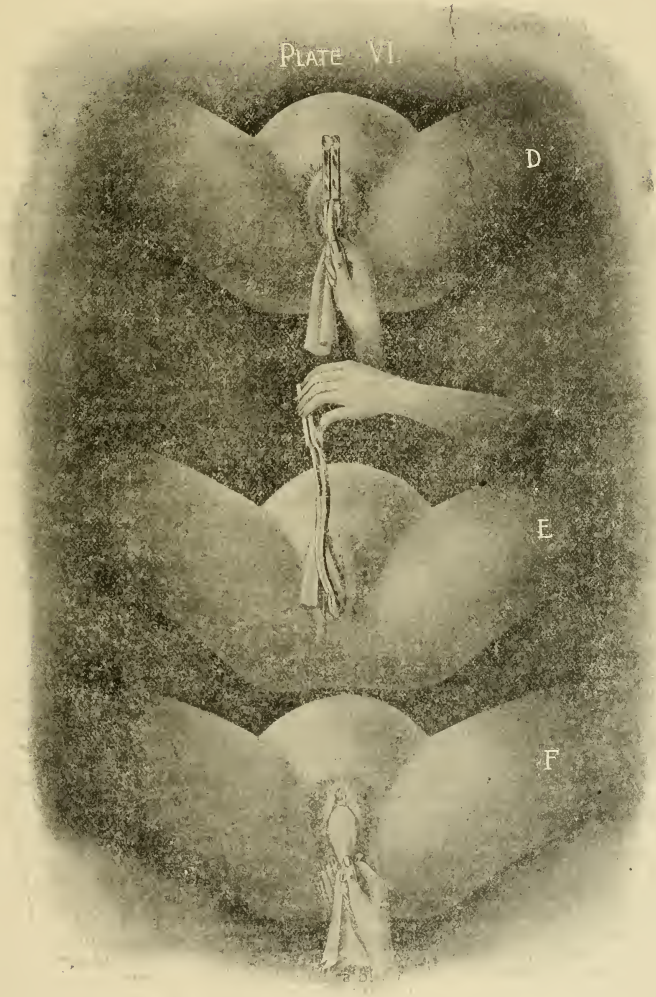
The sliding of the net through either of the slits is at the command of the operator, for, by pressing on one of the blades during circumvolution, the net can be made to slide in that blade alone at the will of the operator, by simply holding the non-elastic border of the net as it emerges from the other blade.

A Most Important Factor: By pulling on the net with any force, in any case, such traction will not increase the constriction of the upper border of the net as it passes above the greater convexity of the head of the child. The applicating blades come with the head as well as with the net (see Plate IV), and the relative position of the net and blades is not changed at the point of constriction by simple traction on the net alone. To accomplish this constriction two methods only can be employed, and they are, to push on the applicating blades holding the non-elastic border of the net steady, or to hold applicating blades steady and pull on noh-elastic border of net; the pulling of the net alone does not increase or diminish that constriction any more than in the whole net, which, of course, contracts some, but evenly, in all directions; a fact which makes this method of delivery most acceptable.

By pulling on different positions of the protruding net, control over the coming head is obtained and errors of position are corrected, an act which, when attempted with the forceps, makes them serve as powerful and most dangerous levers. There is no doubt that, with the forceps, we often pull, without being well able to detect it at first, upon a head which is anchored at the symphysis pubis, and we pull in vein, with dangerous results to the mother and child; with this method, the cone-like shape of the net finds the proper path which the head has to travel without any possible danger of anchorage.

In face and occipito-posterior positions, the control over the motions of the head is such that extension can be performed immediately, the chin passes under the pubes, and instant relief is given at the perinæum.

The stretched net, when pulled upon for extraction of the head, forms a conical shaped protrusion, having its base at the circular border of the presenting head and its apex at the hand of the operator (see Plate IV), forming thus a soft but wedge-llke shape, helping in dilating and preparing the maternal parts for the passage of the coming head of the child, without



D—Traction. E—Extraction of Blades. F—Assistance of the last stage of delivery without the blades.

any possible danger of injury. This soft cone formed by the net will not only assist delivery, but will not injure the mother's parts and ruin her health for life, as the forceps so often do by producing fistulous openings leading from the vagina into the bladder or into the rectum and allowing the contents of these organs to pass into the vagina, sometimes all through a miserable existence. The perfect continuity of the surface of the net cannot take off or tear off the child's ears or nose or disfigure him for life as do the forceps by their fœnestra.

The evenly distributed pressure of the net moulds the head of the child; therefore the even and non-interrupted pressure, by its very diffused nature, not only helps in obtaining a firm hold for the purpose of traction, but also accomplishes that which nature never fails to accomplish, namely, the even moulding of the head of the child to conform its shape to the different parts of the maternal passage by applying a widely diffused pressure.

The applicating blades must necessarily conform in shape to the mother's parts as well as to the child's head. The slit may be placed longitudinally in any part of the applicating blade, at its top, bottom or sides.

To apply the net it is not absolutely necessary to introduce the applicating blades deeply at the symphysis pubis and circumvolute deeply with blades all inserted as far as they will go; all that is necessary is to introduce the net with the aid of the blades for a distance sufficient so that the net will be placed and left at a part of the convexity of the child's head where it will not slip off, and then by continuing the circumvolution (not deeply) around the head until the sacrum is reached, then the blades must be introduced deeply. Thus, the blades being situated deeply and the point of resistance (exit and resistance of the net) being at their extreme end, by pulling on the non-elastic border of the net, it will be seen that the upper part of the net, which was not deeply applied at first, will thus be brought down in position over the head of the child in its proper place just as well as if the head had been circumvoluted deeply in its whole length by the blades, being smaller than those of the ordinary forceps, can be passed between the maternal parts and the child's head with greater facility, but by this method considerable anxiety and pain to the mother is avoided.

The blades, being at the perinæum, afford us a means of protecting that part and prevent its tearing; for, being much smaller than the blades of the forceps, they take but very little room and can be made to offer a firm resistance to the advancing head (see Plate IV). They have the proper flat surface and curve to rotate the head upwards instead of downwards toward the perinæum as nature often does with injurious consequences; it does away with that resultant bagging condition at the perinæum which is so often the cause of most severe tears.

The position of the forceps, being edgewise, helps to produce tears of the perinæum, while the flat surfaces of these blades help to protect it.

The shafts may be made flexible, to facilitate the application of the net, especially for the high operation. They may be jointed, so that the operating extremities of the instrument may be placed at whatever angle desired for the proper application of the net around the head of the child. Of course they must not be flexible edgewise, for in that direction the applicator must be rigid.

The locks may be placed in a variety of positions; for example, at the internal edge of each of the operating extremities of the applicator when the two blades are brought together after the circumvolution of the head of the child has been accomplished; of course they must be free from all sharp surfaces. They may also be placed in the concavity present on the under surface of the instrument at the point of union between the operating extremities and the shafts of the instrument. It may be made a common clamp, holding the rigid blades together and thus locking them securely.

By way of conclusion, I may add that the great number of ruptured cervices which come to our observation in general practice are more often due to the irregular and sudden dilatation produced by forceps delivery than to the size of the child's head, but, with this obstetric tractor, dilatation is effected in a perfect circle, like nature effects it with the soft amniotic sac or the round head of the child. (See Plate IV.)

Everyone has noticed that the head can be deflected to varying degrees in the pelvic basin; one finger can be inserted and deflection of the head effected to facilitate the circumvolution of the blades.

We must remember that instruments such as the vectis and the old obstetrical filet have been used to help delivery and were inserted under the symphysis pubis; also, that the cephalotribe and other instruments used in the severest cases of delivery are much thicker than this instrument. Again, we can boil these blades and this net, but we cannot boil our hands, and still we must use them.

It has always been my aim during my

professional career (as I have no doubt it has been that of my professional colleagues), to use my utmost endeavors to the end of alleviating the sufferings of womankind, those maddening pangs of parturition, and to that purpose I have conceived and devised this instrument, the features of which I have explained to you this evening. I trust to be favored with the coinciding of your views to mine relative to it, and, while I firmly believe that it embodies all the merits I claim for it, I gladly submit it to your criticism—hoping that my address will not have proven an annoyance and knowing full well that this new method of deliveey will receive at your hands whatever worth it may be entitled to.

Nephropexy by a New Method.

Beyea (Pennsylvania Medical Journal) describes a new method of performing nephropexy.

A longitudinal incision is made in the lumbar region parallel with and about four fingerbreadths from the spinous processes of the vertebræ, thus close to the anterior border of the spine muscles. It begins just below the last rib and extends downward for a distance of three and a half inches. The skin and fat are divided down to the fascia, the fascia incised, the muscles separated in the direction of their fibers, cutting again through the lumbar fascia and separating the quadratus lumborum muscle. The perirenal fat is exposed and is likewise incised, opening the space of Garrotta. Then by rolling the patient downward on the Edebohls inflated bag, assisted often by traction on the perirenal fascia and the pressure of the assistant's hand opposite to the incision on the anterior abdominal wall, the kidney is delivered out of the wound. The surgeon then selects a position at the hilum of the kidney in the perirenal fascia which is free from blood-vessels, and about one centimeter from the ureter and renal vessels, which he perforates with the blunt end of a dissecting forceps. Then an ordinary rubber drainage-tube, previously sterilized and of sufficient length to surround the kidney and to protrude for some distance out of the wound when the kidney is replaced, is introduced through this opening made with the forceps and clamped. Similarly a second tube is introduced below the ureter and vessels and surrounding the kidney. The drainage tubes, being surrounded by and passing through an opening in the perirenal fascia at the hilum, are prevented from changing their position and slipping over the convex end of the kidney, or in any way interfering with the ureter or vessels. The kidney is then replaced, the drainage-tubes extending through the incision. The muscle incision is sutured, leaving a small opening for the tubes, with continuous catgut suture. The skin wound is closed by an intracutaneous suture, again leaving the same opening. An oblong portion of gauze is now placed over the wound, and over this one with gentle traction ties the elastic drainage-tubes. The tubes being elastic and applied with little or no tension, the kidney tissue cannot be constricted or its circulation interfered with. The kidney is secured a little below the normal and in the most favorable position. The usual dressing and binder are placed over the wound.

The first dressing is made at the end of ten days, the silk intracutaneous suture being removed at this time. The tubes, which easily slip out, are removed after three weeks. The wound left by them quickly heals, being completely closed within three or four days. The tubes remaining in this position for three weeks secure the formation of two connective tissue tubes, then after contraction two connective tissue cords, one encircling the kidney above and the other below the hilum, from which extend adhesions to the capsule of the kidney and the surrounding perirenal fascia. The amount of adhesion is dependent upon the presence of aseptic rubber tubing, acting simply as a foreign body and causing only very mild irritation, and therefore never producing extensive adhesions to in the least injure the kidney structure, but, as experience has determined, constantly of sufficient strength to permanently maintain the kidney in a fixed position. The muscle and skin wounds heal by first intention, except for the tube tracks, which heal with the smallest cicatrix, as does any drainage track under the same conditions.

This operation has now been performed in eight cases, three operated upon two and a half years ago, three two years, one one year, and the other six months. In the first three cases one tube was introduced; since then, to make more certain the fixation of the kidney, the operation described has been adopted. All the patients have recently been carefully examined, and the kidney found fixed in a position. In all but one the symptoms have been entirely relieved. In this one the patient suffers from gastroptosis, and it is hoped to relieve this by an operation devised for this condition.

Hypertrophic Tuberculosis of the Intestine.

F. Harris (Ann. of Surg., Nov., 1902) states that the irregular character of the clinical manifestations of this affection makes it necessary to describe separately its peculiar features (*a*) during attacks when the patient suffers from the symptoms of intestinal obstruction and (*b*) the intervals between them. (*a*) The symptoms observed during the attacks have been very similar in all instances. Of these, colicky pains are the most frequent, occurring to a greater or less degree in all instances. In a considerable number of cases constipation has been observed during the beginning of the attack, this to be quickly followed by diarrhea; blood has been found a few times in the stools. During the attacks, borborygmi are almost invariably observed, there being often a very loud, gurgling noise, that can be heard at considerable distance from the patient. At these times the movements of the intestines may be easily felt, and, in many cases, clearly seen. Vomiting is also a symptom that is quite common, being in extreme cases fecal in character. The abdomen is commonly swollen, and palpation generally reveals the presence of a tumor which is in the region of the ilco-cecal valve in a majority of cases. These swellings offer considerable resistance to the hand, but are slightly movable, and are usually quite tender. In all cases where the disease is suspected the presence of a tumor is of great diagnostic importance, the clinical picture of the affection being incomplete without it. In addition to the symptoms that are more directly referable to the diseased intestine, anorexia, rapidity of the pulse, and irregular elevation of the temperature are quite common. In a number of instances the patients have suffered from pulmonary tuberculosis. As complications, hemorrhoids have been observed several times, two of the patients had floating kidneys, and convulsions have also been noted in one or two instances. (*b*) In the intervals between the attacks the patients may be in fairly good health, though in a vast majority of instances they suffer from digestive disturbances, sometimes accompanied by vomiting, and pains of a colicky character are frequently complained of. These pains may come on at intervals of months, or may be quite constant, and as the time is approached when a severe attack is beginning they may be almost continous. At these periods constipation is the rule, but frequently alternates with diarrhea. Just before a severe attack, the abdominal tumor is generally quite pronounced. The symptoms may exist in a mild form for a long time without exciting suspicion on the part of the patient that he is suffering from a grave malady. In one instance, recorded by Konig, the disease had existed nine years before a physician was consulted. As far as the prognosis and treatment are concerned, he states that medical treatment can, of course, be of no avail in this malady, an operation being absolutely necessary in order to effect a cure, or even to prolong the patient's life. The statistics, as regards operative interference are, upon the whole, encouraging—60 cases have been cured and four improved out of a total of 88 operated upon.

Placenta Previa.

J. B. DeLee (Chicago Med. Recorder) outlines the treatment of thirty cases of this complication of labor in which he lost only one mother and fifteen children. If the hemorrhage is slight and the placenta marginal the patient may be watched carefully until the head engages or the bag of waters is punctured so as to permit the head to act as a tampon. If the hemorrhage does not then stop, deliver at once by podalic version or with the forceps. If there is profuse hemorrhage he advises either Braxton-Hicks' version, bringing down one leg and controlling hemorrhage by slight traction, or the use of the colpeurynter as recommended by Maurer Duhressen. The colpeurynter is introduced with long, blunt forceps within the membranes and should rest against the fetal surface of the placenta and the lower part of the uterus and cervix. It is distended with a weak lysol solution by means of a Davidson syringe, the tube clamped with artery forceps and traction made. It acts like a wedge, checking hemorrhage, exciting pains and dilating the cervix. The tension may be regulated by making traction with a spring scale attached to the tube; this tension should not exceed two pounds. When the bag is expelled the physician should be prepared for any emergency, or to reintroduce the bag if the cervix is not sufficiently dilated. The child may be delivered by version or the forceps. Postpartum hemorrhage is to be looked out for. The author, in these cases, packs the whole uterovaginal tract with gaze wrung out of ½ per cent. lysol solution. Excessive loss of blood calls for the introduction of saline solution beneath the skin.

Charlotte Medical Journal

EDWARD C. REGISTER, M. D., Editor.

No. 36 South Tryon Street, - - - -

- - - - - - - - - - - Charlotte, N. C.

ELECTROLYSIS.

Electrolysis is the decomposition of a compound body in solution by a galvanic (constant) current. Many do not perceive that the current strength of the electricity causes a great difference in this action.

The electrolysis caused by a trolley current is so strong, that metals and water-pipes are materially injured, in fact slowly destroyed; while applied to the human system mild currents should be used, which act only to produce absorption, never cauterize nor destroy tissues, and the sequel of a cicatrix is an impossibility. Even if in some cases a slight cauterization is made, it will do no harm to the cutaneous surfaces or mucous lining, and acts only like the white film of a nitrate of silver solution. Neurologists use often an actual cautery to the face of young ladies so lightly that no mark can ever be seen.

Mucous lining restore themselves, even if a deeper impression is made and soon they are perfectly healthy. Specialists for diseases of the throat apply light cautery to the nasal and pharyngeal cavities without causing destruction or a cicatrix.

Electrolysis is also used in the removal of superfluous hair, blemishes and small tumors of the face, without leaving any mark. In tumors of the face a needle from the negative pole is pierced through the base or pedicle of the tumor, and it needs often a longer time to destroy the growth with a current of about six milliamperes, which cuts off the nourishment of the growth, bleaches it to a white color, then darkens it and the tumor will be removed. In such cases a mark will be seen for a short time, but finally the skin heals over, leaving a healthy condition without being a mark visible. These operations are mostly demanded by young ladies, who wish to improve their looks, and never would forgive the physician if a mark or cicatrix remained.

In the removal of superfluous hair a dermatitis is often unavoidable, but it disappears very soon, so that no mark is left. Mucous linings will be less affected by electrolysis, if properly managed. Certainly a bungler can destroy tissues and cause cicatrices, but the careful expert never will do any harm. Mistakes are made by using the wrong pole of the battery, too strong currents, too long seances, badly constructed instruments and applying them to unsuitable cases.

Electrolysis is used principally for strictures of the oesophagus, rectum and urethra, and diseases of the prostate. Dr. Robert Newman, of New York, has reported many cases in detail, has treated successfully more than 2,000 cases of urethral stricture, and in his statement declares emphatically, that he never cauterized to destroy normal tissue, nor caused a cicatrix in a single instance. He used the correct instrument, a galvanic current of not more than five milliamperes with the negative pole for about ten minutes once a week applied to suitable cases. If, however, an operator is ignorant of the technique and instruments he certainly is liable to do all the mischief possible.

Electrolysis absorbs the pathological condition by the chemical action of the negative pole with a galvanic current, which current is entirely unsuitable to cure vesical tenesmus, what unfortunately is called in some text-books "spasmodic stricture." A spasm is a temporary condition, which the galvanic current will not cure, but makes it worse. Another mistaken idea is, that electrolysis causes a dilatation. It never dilates a stricture, but *enlarges* the calibre of the canal by absorbing chemically the infiltration or fibrous tissues, which have encroached on the calibre of the urethra, and by such absortion the calibre will be freed from the obstruction and finally restored to its normal size and healthy condition.

Formerly there was a routine to treat urethral strictures by internal or external urethrotomy, which in most instances could not cure or enlarge the calibre for the following reason. After an incision with the knife, the surfaces unite by first intention, and then certainly the calibre of the urethra is not larger than before, nor the stricture cured. Some friends of the cutting operation answer, that the incision must be kept open and dilated with sounds, but such a procedure makes the siuation still worse, because the gap stretched must fill up by granulation, and a cicatrix must be the consequence, which makes it worse, without having removed the stricture.

Many authorities have recently supported this theory, and honestly stated, that urethral strictures very seldom need cutting operations, particularly when the surrounding tissues of the urethra are infiltrated and obliterate thereby the calibre by compression.

IS THERE SUFFIGIENT RESTRAINT FROM VICE THROWN AROUND STUDENTS AT OUR MEDICAL INSTITUTIONS?

There are three classes of students. (1) Those who have good habits, indomitable will power and energy who are poor, yet through industry and economy, they succeed finally to graduate Medical Doctors.

(2) Those who have means, good habits and a high ideal objective point in life. These two classes of students need not have a restraint from evil thrown around them, but an encouraging word will do them no harm.

But there is a class of students probably from the country who are not accustomed to the snares and temptations of a large city. This class of students have means, not a very high ideal objective point in life, they lack energy, industry and economy. They are easily led into vice by others with whom they may come in contact.

Let us follow one of these careless students to medical college. When he has arrived in the city where the medical college is situated, he seeks a boarding and lodging house where there are in all probability other students. These students by their example may either lead the new incomer in the path of right and duty or they may lead him into vice. The new student may accompany some of the other boarders to the opera, then to the theatre, then to the billiard saloon and the pool room, and then to the drinking saloon, then the new comer begins to neglect his studies and his lectures. He—the new comer—may be a bright young man and may manage to graduate a medical doctor with the rest of his class, but by this time he may have contracted bad habits and when he has begun the practice of medicine these habits grow on him and he soon is compelled to give up the race in life he started out for. Now if there had been more restraint thrown around this young student at the medical college his life might not have been ship-wrecked. There are hundreds of medical students who form bad habits in the same way at college, whereas it might have been different had they had a guardian influence for good thrown around them. Indeed! I have often thought, judging from my own experience at medical college, that it is a wonder that there are not more medical students lives ship wrecked than there are while so many temptations lie all around them.

An aggregation of young medical students delight to endeavor to do the remarkable and to exploit on something. Sometimes the love to do the remarkable and other exploitations lead young medical students to do what their conscience and education tells them is wrong, but through the excitement of the occasion they make the first break to do evil; the first break to do evil having been made it is so easy to continue in the path of evil doing.

During the civil war there was a restraint thrown around many medical students from the fact that they occupied responsible positions as medical cadets in the U. S. Army Hospitals and it was through their good behavior that they were enabled to hold these positions. The majority of such medical students turn out well.

In view of these facts it would be well in some way to throw a restraint around students at our medical institutions to guard them as far as posssble from vice. This could be done by having a well regulated boarding and lodging house either within or without the medical institutions under the supervision of one of the officials of the medical college, at any rate there should be more restraint from vice thrown around students at our medical institutions.

SUBSTITUTION FOR VACCINATION A FAILURE.

Cleveland's health officer, Dr. Martin Friedrich, has conducted his official affairs in that city in such a way, laying so much stress on the importance of isolation and disinfection, and almost entirely neglecting vaccination, that the anti-vaccination press has taken advantage of him, as well as the smallpox. He has had complete control over the health affairs of that city for over a year and it has only been recently that he has been forced to enact measures leading to compulsory vaccination.

When he assumed the duties of health officer in July 1901, Cleveland only had seventeen cases. Now according to the Marine Hospital reports, it has more cases than any other city in the United States.

Quarantine, disinfection and formaldehyd fumigation are all practical and beneficial preventative measures in epidemics of smallpox, but they are not sufficient within themselves to control the spread of the disease. A preventative an immunity that will last like successful vaccination, is the only intelligent plan to persue when surrounded by smallpox.

I never could understand, with the great amount of accumulated evidence of the value of vaccination as a smallpox preventative, how any well informed physician could ignore its necessity.

A MOVEMENT TOWARD REGIPROCITY IN LICENSING.

Officers of the boards of Medical Examiners of five states met in Kansas City November 17, and passed resolutions to encourage legislation in the matter of reciprocity in medical licenses. Missouri, Kansas, Illinois, Nebraska and New Mexico were the states represented. These resolutions make the claim that a majority of the physicians in the United States are in favor of an improved and a higher standard of medical education, and are also desirous of doing justice to all of recognizing the value of experience as a qualification, and of doing justice to the veterans in the profession and favor any scheme of reciprocity that possess this sentiment. They favored the uniformity in preliminary requirements, the uniformity in the length and character of the medical course, the uniformity in the character of the examinations, and a uniformity in legislative enactments which shall permit or authorize reciprocity, that the preliminary enterance requirements be satisfactory evidence under oath of a high school education of not less than three years duration, that a medical course should consist of not less than four years of at least seven months each, in four separate calendar years, and that each term shall consist of not less than 800 hours of actual work.

They recommended examinations in the following branches:

"Anatomy, bacteriology, chemistry, materia medica and therapeutics, obstetrics and gynecology, pathology, physiology, practice of medicine and surgery.

The meeting seemed to favor the idea that each examining and licensing board or state board of health be empowered by legislative enactment to accept in lieu of an examination all of the following:

A diploma from a recognized medical school, a license from a state board of health or licensing board, a certificate from the state board of health where the applicant last resided, showing at least ten years of a reputable practice since graduation from a recognized medical school.

Plans were suggested to have a meeting of the various officials of the different state boards that are west of the Mississippi for the purpose of arranging plans for a National Organization. The participants in this meeting seemed to forget the rights and privileges that our National Government gives to each state and the different circumstances that exist in the different states, and the necessity of a very high standard in certain sections and the utter impracticability of a very high standard in other localities, and that these conditions alone make it impossible to enact a National law of any degree of uniformity that will be practical. Any one who has had any experience as an examiner will admit that there is very little necessity for a National law bearing upon the practice of medicine. Each state has the right given it by the old constitution of the United States to say to the physicians who resides within its borders, the kind and amount of knowledge and practical experience that is necessary before they can have the privilege of practicing medicine.

Legislation touching upon the control or regulation of the practice of medicine, even by states, separately, should be carefully considered by our best and most conservative men.

I have never read of a plan, and I think I have kept fairly well informed on the subject, that suggested any National enactment, that would not greatly jeopardize the laws that now exist in North Carolina.

SERUM TREATMENT OF RHEUMATISM.

It is believed by some that the ring of lymphatic tissue in the neighborhood of the pharynx acts as a protective against the invasion of infection. Not so in acute rheumatism, the bacteria of the nasopharynx can enter the blood and cause disease in any part of the body. There is probably not a special affinity of these parts for the bacteria, but their anatomical structure predisposes them to infection. The germs at fault are in the majority of cases streptococci. To determine if serotherapy is of value in rheumatism, the streptococci from the tonsils have been isolated and by them an antistreptococcus serum.

This serum, in contrast to normal serum is able to set up a reaction in the diseased joints of chronic cases which lead to improvement and sometimes even cure. According to the opinion of many authors healthy joints never show this reaction and the effect is probably a bactericidal and not an antitoxic one. Very beneficial results have been seen in acute rheumatism where the joints were generally freely movable and painless after three to four days. The artificial intervals caused by the salicylates, during which there is neither temperature or pain, do not occur.

Relapses are very uncommon if the patient is kept in bed until pulse and temperature have been normal for at least eight days. The endocarditis that is often found in these cases, according to nearly all reports, are very favorably influenced. Taking all the cases that have been reported, they are not sufficient to definitely estimate the value of the serum treatment since they sometimes run a mild course and are often

not observed later than six weeks after their acute attacks. The conditions are, however, different in the chronic form where an undoubted good effect has repeatedly been observed. It seems that here the organism can't react sufficiently to destroy all the germs and that it requires an artificial reaction to remove them from the joints. The streptococci of rheumatism are not specific. They have been injected into patients afflicted with other forms of streptococcus infection and obtained a reaction in all. The injections are generally painless and swelling at the site with enlargement of the lymph nodes is only exceptional. Before the diseased joint reacts there may be a sensation of chill and fever. Eruptions also are common as a result of serum treatment, but mostly when the disease is in the decline. Constitutional disturbances are only slight. The amount of serum injected is usually five to ten cubic centimeters daily, and 50 to 75 generally suffice. The serum should be used with care in cases with hyperpyrexia and pleuritic effusion.

THE MEDICINAL TREATMENT OF GALL STONES.

Dr. William H. Thompson says that scarcely one in thirty of those who suffer from gall stones needs to submit to an operation. He states he has notes of 31 cases, and only one needed an operation. Four of these cases, all women, have died from other causes, but the others have improved under medical treatment. The biliary calculus is not a "stone," he says, but more like a piece of hardened cheese, light enough to float when dry and capable of solution in a number of substances.

He believes the best remedy for gall stones is olive oil, not because of its solvent action upon the stones, but because it increases the flow of the secretions from mucous membranes. The enormous doses formerly recommended are entirely unnecessary. He says:

"The action of olive oil is cholelithiasis I conceive to be this: In the first place, it is a food oil and as such, if taken in a quantity which would not disturb the stomach, that is, about one to two ounces, it is soon passed into the duodenum to excite there, as all fats do so excite, an increased flow of the normal duodenal secretions, namely, the biliary, the pancreatic, and the secretions of Brunner's glands. No larger amount than from an ounce to two ounces is needed for this purpose, because increased secretion from intestinal tracts lower down is not indicated in this condition, while a free flow of watery bile is just what we should aim to secure with as little disturbance of other functions as possible. For this purpose I direct the oil to be taken in a cup of hot milk at night, the milk greatly assisting the tolerance by the stomach of such a quantity of free oil. To patients with cholelithiasis this dose is given for ten consecutive nights, then in intermitted for about a week to avoid gastric disturbance, and then resumed again for ten more nights.

"If recorded clinical experience is to be admitted at all, I think that I can claim from my notes of the histories of patients with this complaint a measure of success demonstrated which cannot be accounted for by any doctrine of chances. The record is not that of immediate relief in any case, but instead a progressive amelioration of symptoms with the paroxysmal attacks becoming lighter and fewer until they ceased permanently. The duration of the treatment above outlined varies as a rule, according to the previous chronicity of the case, from two weeks to four months."

THE RONTGEN RAY IN GYNECOLOGY.

Finsen claims some success in the treatment of various dermatoses by concentrated chemical rays. This suggests to the profession the possibilities of the x-ray as a therapeutic agent in the treatment of malignant disease. Finsen has to admit that the action of his remedy is very slow in most instances and its effect upon an internal growth very uncertain. We certainly feel that the field of experiment with this procedure should be confined to recurrent or inoperable cases, and that the physician is not justified in delaying operation upon a favorable case in order to test this method. If the case is inoperable when it comes under the surgeon's observation, or has recurred after a skilful surgical operation, then possibly an experiment is warranted. Certainly the x-ray is of value to the gynecologist or obstetrician in diagnosis. However, it is of far less use to either of these than the general surgeon who deals with the osseous system. The x-ray picture of the pelvis, is often indistinct and unsatisfactory and rarely affords much assistance to the gynecologist who has already become expert in the palpation of this region. Better results can be obtained above the pelvic bones; for example in the study of the ureters and kidneys, and for the localization of calculi in those structures.

While the pelvis of the non-pregnant woman can be studied by one skilled in the use of the x-ray, yet many inaccuracies arise from the distortion of the shadow; and the results cannot be compared with the usual pelvic examination made by a skilled obstetrician. The maternal pelvis can be clearly seen after a pregnancy of 4½ months

but later than this the uterus and its contents form a veil on the negative. The position and presentation of the child may be determined near the termination of gestation and the x-ray may prove of possible value in cases of multiple pregnancy. As to the value of the Rontgen ray as a therapeutic agent in gynecology, many cases have been recently reported in which the Rontgen and ultra-violet rays were employed in the treatment of uterine cancer with marked improvement, and cases have been cited in which a favorable result has obtained in recurrent carcinoma of the cervix. The great difficulty in the treatment of malignant disease of the uterus is the application of the ray to the internal part, and there is probably a legitimate field for invention in the construction of an instrument suited to this purpose. Authors differ as to the necessity of the direct local application of the ray and some believe that the tissues generally in the pelvis should be brought under the influence of the x-ray.

THE PLAGUE IN SAN FRANCISCO.

The existence of plague in San Francisco is to the people of California and the United States a menace still of the greatest importance. There is no question that it is not very prevalent in that city, yet the politicians, the press and the people of that State still emphatically deny that a single case exists there, and because of this denial no sufficient effort is or can be put forth to suppress the contagion. Sixty-eight cases were added to the list for the month of August, and so virulent is the poison growing that it has appeared necessary to the representative of the National Government, M. J. White, Assistant Surgeon Marine Hospital Service, in command, to ask for aid in some effort to stem the tide. He has not only appealed to his superiors at Washington, but to the city Board of Health; which still appears to 'hold the fort' pending judicial determination, and to be sustained by the Board of Supervisors in spite of the opposition of its official head, the mayor.

INDIVIDUAL CONSUMPTION OF ALCOHOL

An English writer, finds that the average individual consumption of alcohol a year in France, Switzerland, Spain, Italy and Hungary, taken together as constituting the southern countries of Europe, amounts to 2.53 gallons, while that in the northern group—namely, Belgium, Denmark, Germany, the United Kingdom, Norway, Sweden, and Russia, with the United States of America—amounts to 1.60 gallons. Italy, a southern country, is far from being the home of a sober population notwithstanding its almost primeval familiarity with wine. The writer comes to the conclusion that the theory of an immunity derived from prolonged familiarity with the use of alcohol is unsupported by the facts as observed in the test case of the European nations. The author mentions some instructive details from the reports of the English exchequer to show that the sum per capita spent in England and Wales during the last 39 years has varied in direct proportion with commercial prosperity, rising steadily from £2 18s. 0¼d. in 1860 to £4 9s. in 1876, falling again during a period of comparative depression between the latter date and 1888 to £3 6s. 8d., and again gradually raising to £3 19s. 11½d. in 1899. In other words, the lack of purchasing power has acted as a salutary check upon excess.

Book Notices.

The Physician's Pocket Book, Consisting of a Manilla-bound book of 208 pages and a leather case. By J. J. Taylor, M. D. Price $1.00 complete. Subsequent books to fill the case, 40 cents each, or 3 for $1.00. Published by The Medical Council, Twelfth and Walnut Streets, Philadelphia.

Some of the special points of value that this book possess which might be mentioned are: That it is a single book system, each account is made in ledger form which dispenses with a bulky ledger, and if accurately kept by the physician it is not difficult to prove an account against a debtor in court if a dispute arises. The cash book pages are so arranged that they may serve a double purpose and the last one may be used for a summary. When necessary a new book may be placed in the cover which is of the best quality of morocco. It is a model of economy and convenience and is of pronounced adaptability for the busy physician in general practice. At a glance, one can see many evidences of merit in this little account book and we predict for it it a very large sale.

Transactions of the American Dermatological Association. 1901.

The copy now before us is the first that has been received at this office. It makes a good impression on us. It is a record of this Association during its meeting held at Chicago, January, 1901, and is a book of over two hundred pages, several illustrations, many of which are beautiful and have evidence of originality. Dr. Frank Hugh Montgomery is Secretary.

The Reference Hand-Book of the Medical Sciences. Embracing the entire range of Scientific and Practical Medicine and Alide Science. By various writers. A New Edition, Completely Revised and Rewritten. Edited by Albert H. Buck, M. D., New York City. Volume V. Illustrated by Chromo-lithographs and Five Hundred and Seventy-Six Half Tone and Wood Engravings. New York. William Wood & Company.

This volume is an especially valuable one. It contains a symposium of articles by the leading alienists of the country, constituting a really very complete treatise on the subject of Insanity. The Kidney diseases, and Liver diseases are similarly treated in groups; also the affections of the Larynx, and a large proportion of the diseases affecting the Lungs. The articles relating to diseases of the Eye are scattered throughout the entire series of eight volumes, and the present volume contains several important ones. A large number of the leading Laryngologists of the United States and Canada have taken part in the preparation of the articles relating to the Larynx. This group taken in connection with the symposium of Ear articles in volume four, and the similar collection of articles on the Nasal Cavities to appear in volume six, makes one of the most exhaustive treatises on the affections of the Ear, Nose and Throat that has ever been published in the English language.

As regards the isolated articles there are not a few which alone are good enough to make the reputation of the book. Among these may be mentioned: Dr. Theodore Janeway's article on the Leukæmias; Prof. Ward's article on Mosquitoes in relation to human Pathology; Dr. Schauffler's very practical article on Malarial Diseases; Prof. Osborn's article on Parasitic and Poisonous Insects; Prof. Councilman's article on Inflammation; Dr. Robert Lovett's article on Chronic Diseases of Joints; Dr. Benjamin Tilton's article on The Surgical Treatment of Diseases of the Liver; Dr. Arthur I. Cabot's article on Litholapaxy and Lithotomy; Dr. Olover Ormsby's article on Leprosy; Dr. E. T. Brackett's article on Lateral Curvature of the Spine; Dr. George Dobbin's article on the Management of Normal Labor; Prof. Joseph W. Warren's article on The Physiology of the Reflexes; Dr. Arthur Shrady's article on Tuberculous Diseases ot the Lungs; Dr. Dawbarn's article on the Starvation of Malignant Growths; Prof. Lafayette B. Mandell's article on the Metabolic Processes; Dr. Robert Lewis's article on Mastoid Operations; etc.

The above represents only a portion of the treasures which this volume contains. Very many of equal importance might be enumerated if space permitted. It is doubtful if any book published in this country or in Great Britain ever contained so much information useful to medical men of all sorts—scientific enquirers, busy family practitioners, or men who devote themselves to some special department of medical practice—as does this Volume V.

The Practical Medicine Series of Year Books. Comprising ten volumes on the Year's Progress in Medicine and Surgery. Issued monthly under the general editorial charge of Gustavus P. Head, M. D. Vol. I: General Medicine. Edited by Frank Billings, M. D., and J. H. Salisbury, M. D. Chicago: The Year Book Publishers. October, 1902.

Two volumes of this series each year are devoted to general medicine—the October volume, which takes up all the general diseases except those of the alimentary tract and those diseases which may be more seasonably presented in the May volume, and the June volume. The May volume of this year included in its table of contents typhoid fever, malaria, yellow fever, dysentery, tropical fevers, peritonitis, diseases of the gastro-intestinal tract, of the esophagus, the liver, the pancreas.

This series aims to fulfil the following requirements of a year book; Completeness, freshness of material, ease of reference, seasonableness, convenient size, low price.

It gives us pleasure to recommend those books, they are invaluable for the busy practitioner.

International Clinics. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Articles on Medicine, Neurology, Surgery, Therapeutics, etc. Edited by Henry W. Cattell, A. M., M. D., Vol. III. Twelfth Series. J. B. Lippincott Company, Philadelphia.

This volume of the International Clinics contains two timely articles on typhoid fever, one on the treatment of the disease by Professor Osborn of Yale, which is very practically suggestive and complete, and the other by Professor Mauger of Versailles, on the treatment of intestinal perforation in typhoid. Among the surgical contributions is an article on some effects of firearms at short range, with experimental illustrations by John H. Brinton, which contains some very interesting material. Dr. John A. Lewis's article on the treatment of fractures and dislocations in relation to suits for malpractice is a timely review of certain objectional features of

present-day surgical practice, since the introduction of the X-rays have made such suits more prominent than ever. As Dr. Lews says, "This is an age of damage suits and they seem to be a prevailing fad." Professor J. P. Tuttle contributes a very practical clinical lesson on the applications of the clamp and cautery for internal piles, as this method can be employed even in country practice where the physician cannot always see his patient for several days in succession after the operation. The special articles in this volume on the function of the digestive gland based on researches of Professor Pavlow and his pupils and a critical study of the theory of inflammation by Hans Schmaus, Extraordinary Professor at the University of Munich are well calculated to keep the practitioner abreast of advances in theory to correspond with practice. For those who are interested in curiosities in medicine there is an article by Dr. James J. Walsh on Insect Pests of Human Beings, which is a contribution very little known and only recently developed chapter of medicine.

All together this volume is equal to any of the series that we have examined, and is full of everything that is valuable, to the student and practitioner of medicine or surgery.

Obstetrics. By Henry J. Garrigues, A. M., M. D., Professor of Obstetrics, New York Post-Graduate School and Hospital, New York School for Clinical Medicine; Consulting Obstetric Surgeon to the New York Maternity Hospital, New York Mothers' Home, and Maternity Hospital, etc., etc, 750 pages. Octavo. 504 Illustrations, many in colors. Cloth, $5.00. Sheep, $6.00. J. B. Lippincott Co., Publishers, Philadelphia.

The author has written a text-book that will give practical help, it being a peculiarity of the obstetric art that the physician from the very moment he begins practicing may encounter any kind of complications and difficulties, which have to be met at once. The author has, therefore, been as brief, clear, and precise in expression as possible.

The work is so profusely illustrated that one who is somewhat familiar with this branch can refresh his memory by merely turning over its pages and looking at the pictures. The illustrations are largely new and drawn directly from nature in order to avoid the manifold inaccuracies found in current representations, and, as far as possible, objects are represented in their actual size.

The real difficulties and dangers of childbirth which give the physician grave concern arise almost exclusively from abnormalties, complications, and accidents. The treatment of these has shared in the rapid advancement made during recent years, and this volume presents in the most practical way the very latest results in this branch of medicine. Among the improvements, four worthy of special mention are —antisepsis, with its offspring asepsis, the axis-traction forceps, the improved Cæsarean section, and the revival of symphyseotomy, this being practically a new operation; and the Cæscarean section having undergone so great changes in recent times, the author has carefully presented the method of procedure sanctioned by the best practice.

The Practice of Surgery. A Treatise on Surgery, for the Use of Practitioners and Students. By Henry Wharton, M. D., Clinical Professor of Surgery, Woman's Medical College of Pennsylvania, etc., and B. Farquhar Curtis, M. D., Professor of Clinical Surgery and Adjunct Professor of the Principles of Surgery in the University and Bellevue Medical College of New York, etc. Profusely Illustrated. Third Edition. Philadelphia and London: J. B. Lippincott Company, 1902.

It gives us pleasure to examine Wharton & Curtis' Practice of Surgery. Three editions of which have been required in five years. The authors have given special attention to the diagnosis and details of treatment of surgical diseases and injuries, attempting to supply within convenient limits of size and at a moderate price a work of practical value to every physician.

The success of the volume has doubtless been mainly due to its extremely practical nature, and the fact, that, while the art of surgery is most thoroughly and fully though concisely treated by the authors, with a view to the needs of the general practitioner, the publishers, by printing the work with a series of side-headings that immediately catch the eye, have made quick reference especially easy. In this thoroughly revised, re-written and re-set edition the entire work is brought up to date in every respect.

Transactions of the Royal Academy of Medicine in Ireland. Vol. xx, 1902.

We prize very much these volumes of Transactions that come to us annually. This one especially is of unusual interest. It contains many colored plates and half-tone illustrations. This volume is bound in cloth, similar in style to the volumes that have preceded it.

Dr. John B. Story, of Dublin, Ireland, is the general secretary.

Physiology, Fear and Faith. A little book containing important facts and suggestions regarding the causes and the cure of disease, the employment of physicians, and the use of medicines. By Lyman Beecher Sperry, A. M., M. D., author of "Confidential Talks with Young Men," etc. Published by Fleming H. Revell Company, Chicago, New York, Toronto, London and Edinburgh.

This is a paper covered book of 78 pages witten in rather an attractive style. The plan of the author was to make a few plain statements with suggestions regarding one of the most important practical problems that confronts the human race at this time. The degree of superstition, delusion, credulity and nonsense that characterizes the conduct of a majority of mankind, in the fields of disease and medicine, astonishes the thinker and the intelligent members of the public of to day. The author discusses the relation of superstition from a physiological standpoint, from a religious standpoint and from a disease standpoint with the nonsense that has come into our everyday practice as physicians and, too, as teachers and professional men generally. While we do not endorse everything that he says and all the features that he makes prominent, yet there is a great deal about the little book that interests us. It would be helpful to the most intelligent professional gentlemen.

Lessons and Laboratory Exercises in Bacteriology. An outline of technical methods introductory to the systematic study and identification of bacteria, arranged for the use of students by Allen J. Smith, M. D., Professor of Pathology in the University of Texas, Galveston. Price, $1.50. Published by P. Blackiston's Sons & Co., 1012 Walnut Street, Philadelphia, 1902.

This book was originally arranged, as a series of exercises to be carried out by the class in the University of Texas under the guidance of an assistant, the hours of work of the several classes so overlapping that it was impossible for the Doctor to give his personal attention to the class in this laboratory, for the work in which he was, however, responsible. These notes have been compiled with a few changes and published in book form with blank pages for notes. The book contains about three hundred pages and has a great many very fine illustrations.

Dr, Smith is a fine teacher and has given the profession a guide to the study of bacteriology that will be of immense value. No one who is doing a great deal of practical work along this line can afford to be without the book. It is in every respect up to date and written in an attractive style. Prof. Smith is peculiarly gifted in making his points clear and easily understood.

Schalek on Dermatology. A Manual of Skin Diseases for the use of Students and Practitioners. By Alfred Schalek, M.D., of Rush Medical College, Chicago. In one handy 12mo. volume of 225 pages, with 34 illustrations. Cloth, $1.00, net. Lea Bros. & Co., Publishers, Philadelphia and New York, 1902.

Dr. Schalek has furnished a compact little treatise on a subject of great importance to every general practitioner and medical student. On careful reading the wonder grows that so much trustworthy information can be contained in such a handy little volume.

The work is divided into two main parts; "General Considerations" under which heading is given the necessary preliminary data and the principles which apply throughout this specialty, and "Descriptions of Diseases of the Skin. In this latter section is a careful and trustworthy account of derivations and synonyms, and descriptions of the various diseases with etiology, symptoms, diagnosis, prognosis and treatment.

In the absence of any generally accepted plan among writers and specialists in Dermatology, the author has adopted an alphabetical arrangement as being most convenient for direct and ready reference. Illustrations are helpfully used throughout the book.

Reginal Minor Surgery. Describing the treatment of those conditions daily encountered by the general practitioner. By George Gray Van Schaick, M. D., Attending Surgeon to the French Hospital, New York. Published by the International Journal of Surgery Company, Medical Publishers, 100 William St., New York, N. Y. Price, $1.50.

This is indeed a very attractive little volume, filled with practical points and written in a very clear style. Very few references to other writers are given, this is on account of making the book as small as possible. The book was written from personal observations by the author during eighteen years of considerable work in dispensaries and private hospital practice. During these many years of practice the writer saw the need of a book like this on Minor Surgery. It is particularly fitted for the needs of the general practitioner. The book has 226 pages and several original illustrations. It gives the writer much pleasure to recommend the little book.

A Story of a Living Temple. A study of the Human Body by Frederick M. Rossiter, B. S., M. D., and Mary Henry Rossiter, A. M. Published by Fleming H. Revell Company, Chicago, New Nork and Toronto.

The author of this book is a medical man of considerable experience. At a glance over this work one can easily recognize that he is a thinker and scholar of unusual ability. His comparison of the human body to a building of architectural perfection is beautiful. It is the author's desire to regard the human body as a rare and wonderful building that should be carefully watched and attended, or a temple that is not vital. This analogy has been followed throughout the book. Evidences are numerous to show that the writer has taken great pains to adhere to scientic truth in every particular. The book will interest most any reader and we take great pleasure in recommending it. It is cloth covered making a handsome volume of three hundred and forty pages.

The A B C of Photo-Micrography. A Practical Hand-Book for Beginners. By W. H. Walmsley. 155 Pages, 5x7, with 29 Photo-Micrographs by the Author. Cloth, $1.25 Net. Tennant and Ward, New York.

The lack of any American book dealing with this fascinating branch of photographic work, and the great need of an elementary introduction to photo-micrography, has led Mr. W. H. Walmsley to prepare this excellent manual. Mr. Walmsley is a recognized authority in the photo-micrographic world, and has had a more varied and longer experience in the field than most of his co-workers. He deals with his subject in a plain but comprehensive way. and the beginner who will study the A B C should find his difficulties vanish. The illustrations add largely to the practical va'ue of the book and are, in themselves, most interesting.

Transactions of the Association of American Physicians, 1902.

This volume is the proceedings and papers read at the Seventeenth Annual Session at Washington, D. C., April 29 and 30, 1902. It would take many pages of carefully prepared manuscript to give our readers any idea of the many valuable and interesting things recorded and illustrated in this large book. It has over seven hundred pages and hundreds of beautiful illustrations. Dr. Soloman Salis Cohen, of Philadelphia, is editor.

Obstetrical Nursing for Nurses and Students. By Henry Enos Tuley, M. D., Louisville, Ky., Professor of Obstetrics, Kentucky University, Medical Department; Visiting Obstetrician to the John N. Norton Memorial Infirmary, Louisville City Hospital and the Home for Friendless Women, etc. Pages 202. Price, cloth, $1.00 net. G. P. Engelhard & Company, Chicago, 1902.

There is certainly a demand for a book of this kind just now, written in an attractive style like this one and encorporating everything that is new and up to date in this very important department of nursing.

The book has many illustrations, arranged in such a way as to explain at a glance, many things that would otherwise be hard to grasp by the pupil.

The Practical Series of Year Books. Vol. X. Skin and Venereal Diseases, Nervous and Mental Disorders. By W. L. Baum, M. D., and Hugh T. Patrick, M. D. Chicago: The Year Book Publishers. 1902.

There is some connection between skin and nervous disorders, and also between venereal and mental, but that is probably not the reason for the combination found in this year book. This is Vol. X of the series, and maintains, by the character of its abstracts, the standard set by its predecessors, covering the special fields well. It makes a handy book to carry about with one.

Transactions of the New Hampshire Medical Society, 1902.

This Medical Society is one hundred and eleven years old, has about five hundred members and gets out an annual volume of transactions of 450 pages. These pages show many evidences that the class of work done by the members of its Association is of a very high order.

Dr. J. A. Watson, of Concord, is President, and Dr. L. A. Conn, of Concord, is Secretary.

Literary Notices.

Scribner's Magazine for December, 1902. The Christmas number of Scribner's Magazine has been always made notable by the richness and beauty of its pictures, and the fine quality of the sentiment and exquisite workmanship of its stories. The issue of this December number sustains and adds to that reputation. It contains eight short stories, most of them illustrated, and special articles and poems, among them a beautiful unpublished poem by Robert Louis

Stevenson, written in 1872 when he was a young man. The poem shows the charm of Stevenson's style at the very outset of his career.

The color-printing (in which Scribner's led the way years before it appeared in any other magazines) is especially beautiful in this number. The cover by Frank V. Du Mond is in gold and nine colors, a charming, bright design typical of the holiday season. The most delicate piece of color-printing yet attempted by this Magazine is found in the illustrations by Jessie Willcox Smith, which tell their own story without text of "A Mother's Days."

A very simple and striking scheme of color is shown in Edward Penfield's "Christmas at Cafe Spaander," the artist's own account of how good cheer was produced by a lonely English artist in a little Dutch village. Mr. Penfield's pictures give all the quality of a quaint Dutch town and the oddity of the characters there.

Richard Harding Davis in his most attractive manner describes apropos of the great Spanish coronation Bull-fight "The Gentle Art of Bull-Fighting." He not only gives a vivid description of its exciting and its repulsive features, but for the first time he makes the real hero of the bull-fight to be the humble attendant known as the *chulo* whose business it is to sweep up the ring.

Few novels of the past generation are more loved than "Lorna Doone," and few novelists were so little known personally as its author, R. D. Blackmore. The letters which the Magazine is privileged to publish, written by Mr. Blackmore to a young American lady, reveal a most attractive personality, showing him more interested in his beautiful garden and farm than in literature. The letters are edited by the friend to whom they were written, Mrs. Lucy Derby Fuller.

Maxfield Parrish, stands at the very head of American illustrators in color, furnishes a striking frontispiece to accompany "The Desert," a story by Arthur Cosslett Smith, whose "Turquoise Cup" made him notable among fiction writers. This is the love story of an Arab caravan-owner and is most delightful in its sentiment.

The December Lippincott's Magazine.—Miss Maude Roosevelt, a cousin of the President and an actress as well of considerable vogue, contributes the monthly complete novel to the Christmas number of Lippincott's Magazine. "The Price of Fame" proves that fiction is by no means the least of Miss Roosevelt's accomplishments. She turns a brilliant searchlight on New York society life which reveals the good and the bad with infinite skill. The evolution of Helen Mortimer—country-bred girl with an imaginative temperament—into an actress of the first rank, through the most treacherous act a man may commit, is the pivotal point in this novel of exciting episodes that ends delightfully.

In addition to the complete novel in the Christmas number of Lippincott's Magazine there are many short stories, several papers suited to the glad season, much good verse, and the usual diverting "Walnuts and Wine."

Thomas Cobb's long-short-story entitled "Lady Della" shows what risks a pretty girl takes when she masquerades as a housemaid. Thomas Cobb is the author of "The Dissemblers," which so much diverted Lippincott's readers as a complete novel.

"The Attack on the Chaise," by H. B. Marriott Watson, is a romance of fine ladies and brave men, a duel, and a humorous ending. This is told in a manner which has made the author famous both in this country and abroad. "A Voluntary Exile," by Jennette Lee, is a story of a country woman who had the time of her life in the possession of an automobile, and incidentally almost the time of her death. E. Ayrton writes from London a story called "Cinderella's Sisters," in which the thread resembles the dearly loved fairy tale, in that while two sisters are quarrelling over a desirable man the third carries off the prize. In Miss Ayrton's story there is a fourth girl in the race to whom the climax is somewhat trying.

A Christmas story from the pen of Edwin L. Sabin is that called "The Littlest Boy and Santa Claus." This is not exclusively juvenile for even the "grown-ups" cannot fail to enjoy knowing how Santa was caught by "Boy" in the very act.

"Dinners of Fifty Years Ago," by Mrs. E. S. Bladen, are most interestingly viewed in the light of those of the present day. Generous living was then the rule, and profusion reigned supreme, a subject meet for Xmas

In a paper called "A Musical Game" Philip A. Goepp describes a game which he says "is heartily commended and has been well tested." He writes pleasantly of some musical favorites.

Paul Laurence Dunbar's "Lyrics of Love and Sorrow" are touchingly beautiful. Christmas poems are contributed by Mildred I. McNeal: "The Flock in the Meadow;" and Susie M. Best: "New-Born Babe of the Royal Palace;" and other contributors to the verse of the month are Ingram Crockett, Edward Wilbur Mason, Agnes Lee, J. Hammond Brown, and Alice Moore Dunbar.

It is a peculiar fact that the letters and other writings of DeQuincey, Carlyle, Darwin, Huxley and Browning, liberal as they are with references to the continued ill-health of those great writers, have not before this suggested to the medical profession an opportunity for research into the causal factors of those physical conditions. That the opportunity has not until now been recognized in its proper light is evidenced by the hitherto total absence of any work dealing with this subject. Dr. George M. Gould's Biographic Clinics, (P. Blakiston's Son & Co., Philadelphia) which is devoted to this neglected subject should, therefore, prove a most unique and valuable contribution to biographichical and medical literature. The work is announced for publication in December.

Dr. Gould has gathered from the biographies, writings and letters of the five named men every reference to their ill-health. Each endured, as is well known, a life of suffering which made almost every day a torment and by which their work and worth as an asset of the nation and civilization was conditioned and often rendered morbid. The cause of their affliction was an utter mystery to their physicians. No explanation explained, and no cure cured. Dr. Gould has gone into the "why" of this very thoroughly and the conclusion reached by him, from logic and from a careful summary of the clinical symptoms, is that each of the writers suffered from eyestrain, and that scientific correction of their ametropia would have transformed their lives of mystery into lives of happiness. A history of the discovery of astigmatism and eyestrain, with a discussion of its indications and responsibilities, completes the work. It is interestingly written, and will undoubtedly meet with a ready sale among medical men and those interested in the works and lives of the quintette of great writers.

In the Review of Reviews for December there is a comprehensive editorial summary of the political situation in all the States. The results of the November elections are carefully analyzed with reference to their bearings on national policies. The editor also discusses the proposition for the admission of new States in the Southwest—the first subject of debate at this session of Congress—and offers cogent reasons in support of the plan for the direct election of United States Senators. Other important topics of the month—in foreign as well as domestic politics—are treated with the Review's accustomed thoroughness and accuracy of judgment.

Abstracts of the Leading Articles of the Month.

Intraperitoneal Hemorrhage Incident to Ectopic Gestation.

Cullingworth, in The British Medical Journal, Nov. 8, 1902, enumerates the following points upon which he chiefly depends in diagnosing this condition: (1) The fact that at the moment of the attack the patient was in her usual health. This circumstance would render it highly improbable that the symptoms were due to gastric or intestinal perforation, or to rupture of an internal abscess or suppurating cyst. (2) The gradually increasing pallor of the patient, and the gradually rising pulse rate (without corresponding rise of temperature), both being indicative of internal hemorrhage. (3) The extreme tenderness of the abdomen. To this symptom the writer has learned to attach a very special value. It often misleads the medical attendant into suppsoing that there is acute general peritonitis. It cannot, therefore, be too strongly insisted upon that marked, and even excessive abdominal tenderness, does not necessarily indicate an inflammatory condition. It is met with, for instance, over ovarian tumors when, as the result of rotation of the pedicle, they have become the seat of hemorrhages, intracystic and intramural. It is quite true that peritonitis is a not infrequent later result of this accident; but this marked tenderness may be observed when, on opening the abdomen, there is no visible sign of inflammation. (4) If a menstrual period has been missed or is overdue the diagnosis of the case is greatly facilitated, but it does not follow that because menstruation has been regular rupture of an ectopic gestation may be excluded. For some of the most appallingly sudden cases of rupture occur at a very early stage of the pregnancy, even, it may be, before a single period has been missed. Hence arrested menstruation is not essential to the diagnosis, though when present it is a valuable help to it. If, in addition to the arrested or delayed menstruation, there is morning sickness, the diagnosis is even further facilitated. But, after all, these signs of early pregnancy do not prove very much. They do not even prove that the pregnancy, if present, is ectopic, or that, whether it is or not, it has anything to do with causing the present illness. All that can be said is that when symptoms are present that suggest the possibility of a ruptured ectopic gestation, these signs of pregnancy serve to confirm the suspicion. The signs obtained by vaginal examination are not very definite. In these cases of diffuse intraabdominal

hemorrhage there is absolute necessity for prompt surgical treatment. Probably a large majority of cases of pelvic hæmatocele are due to ectopic gestation. Pelvic hæmatocele is generally characterized by irregular uterine hemorrhage, and by attacks of pain, more or less severe: these are often accompanied by vomiting, followed by development of a definitely circumscribed swelling. This may be found on the affected side only in the region or the uterine appendages, or it may more or less fill up the posterior pelvic cavity, and rise to the lower part of the abdominal cavity. In differentiating between pelvic hæmatocele and an ovarian cyst with intracystic hemorrhage from twisted pedicle, the writer suggests two points: An ovarian tumor is seldom as closely connected with the uterus as a tubal pregnancy would be. In twisting of the pedicle, a tumor can be found at once, and can be observed quickly to increase in size; in tubal gestation with hematocele a tangible tumor is not formed at once. It is generally several days after the onset before any swelling can be made out. Concerning the etiology of the conditions treated in this paper, the writer states that it has been observed that the ordinary result of tubal rupture is a diffuse and highly dangerous intraperitoneal hemorrhage, while the ordinary result of bleeding from the open mouth of the tube is the formation of a hæmatocele. As to the out come of pelvic hæmatocele or of a diffuse but non-fatal intraperitoneal hemorrhage, the tendency in both cases is to the gradual absorption of the extravasated blood and to the recovery of the patient. But there are dangers to be considered, and of these the two most important are the liability to fresh hemorrhages and the liability to bacterial infection of the blood already poured out. He concludes by saying that gynecology is becoming more surgical, but that is all the more reason why medicine should still keep a hold upon it, to exercise a wholesome restraint upon its surgical enthusiasm and to continue to inspire it with that reverence for accuracy of diagnosis which otherwise it might be apt to lose.

The Treatment of Leucorrhea.

W. O. Henry (Western Med. Review), says that leucorrhea is never a disease but always a symptom of some local condition, varying in intensity from a mild vaginal catarrh to malignant disease of the cervix or uterus, indicates the treatment for the simpler ailments. In young unmarried women a vaginal examination is rarely necessary and attention to the general health, tonics and possibly elixir of cramp bark for a week at the time of menstruation is all that is necessary. To this may be added a hot astringent injection, given at bed-time, the patient lying on her back with her hips elevated while taking it. Zinc sulphate, lead acetate, copper sulphate, alum or creolin may be used in the water, or in the same way fluid hydratis, 2 to 4 drams to the pint. In other cases vaginal suppositories, each containing 2 to 5 grains of tannin may be tried. If the leuchorrhea is dependent upon a torn and ulcerated cervix, of course the treatment is surgical, but Monsell's solution, tannin or nitrate of silver solution (30 grains to the ounce) may be applied as a palliative measure. All mucus must be removed before making applications.

Perforation of the Bowel in Typhoid Fever

G. E. Armstrong (Ann. of Surg., Nov., 1902) believes that the early diagnosis and operation are the two factors upon which one must depend to achieve greater success in saving the unfortunate victims of this deplorable and terribly fatal complication of enteric fever. The proposition that the sooner a hole in the intestine is closed the better can hardly be debated. As a general principle, it does not admit of argument. Granted certainty of diagnosis, the great argument against immediate operation is the presence of shock. In his own experience, marked shock generally indicated a large perforation, or at least the escape of a considerable quantity of contents from the gut into the peritoneal cavity. If the opening was small, intra-intestinal pressure was great, so that the total result was the same as if a larger opening obtained. To wait for shock to pass simply means the allowance of time for the spread of the infection and the development of a condition rendering subsequent cure more and more difficult. The aim should be to anticipate shock, and by so doing give aid while the infection is still confined to the narrowest possible area. In many cases there is a period of a few hours immediately following the perforation during which things seem to remain almost in statu quo. The tension within the bowel is momentarily relieved; sometimes the little opening is for the moment closed by a fringe of omentum or a friendly neighboring coil of intestine, and the condition only begins to increase after the intestinal tension is restored or a peristaltic wave has detached the tissue lying over the opening. This quiescent period is the surgeon's opportunity. It is the operation's safety period, and when once passed, the dangers are greatly increased. Operations done at this time may possibly find a beginning peritonitis from infection through the still intact base of an ulcer. This base being found suspiciously

thinned could then be enfolded and closed over by a row of sutures. That a localized infection may result from contagion through a thin and altered base of a typhoid ulcer is now generally admitted; and that even a fatal general peritonitis may result from such a base, and without macroscopical perforation is proved to be true by the Munich autopsies, where peritonitis was present without perforation in 2.2 per cent. of the cases. Recovery from perforation of the small intestine not closed by the surgeon is extremely uncommon. The experience gained by surgeons who have opened the abdomen and failed to find any perforation, although in some instances the symptoms present were fairly definite, has developed a doubt as to the correctness of the diagnosis in cases afterwards recovering without operation or abscess formation. This idea is put very strongly by Fitz in the following language: "Since perforation of the intestine in typhoid fever may take place without any suggestive symptoms, and since suggestive—even so-called characteristic—symptoms may occur without any perforation having taken place, it must be admitted that recovery from such symptoms is no satisfactory evidence of recovery from perforation." There is the best possible reason, then, for interfering, if the physician thinks a perforation has occurred, because by so doing he gives the patient the only chance there is of recovery. Operations in the past have been too frequently undertaken, not to close a perforation and to cleanse the limited area of infection, but to relieve as far as possible a developed more or less septic perforative peritonitis, the surgeon in such cases setting himself an almost impossible task. Experience in the sequelæ of appendicitis has taught him that the infection from the ileum is no less virulent than from the appendix, while the patient is in an infinitely less favorable condition to resist the general toxemia. A few cases of infection, limited and resulting in abscess formation, have been reported, some of them have recovered, some have died. To trust to the limitations of infection is a reckless attitude for the medical or surgical attendant to assume. He holds that early operation anticipates shock in most instances, anticipates perforation or rupture of a suppurating mesenteric gland in a few instances, and may be in time to relieve the conservative adhesion of omentum or other serous surface before it is forcibly separated by peristaltic or intra-intestinal pressure. He is sustained in this view by Mikulicz, who said at Magdeburg in 1884, "If suspicions of perforation, do not wait for an exact diagnosis and for peritonitis to develop to a pronounced degree, but, on the contrary, immediately proceed to an exploratory operation, which, in any case, is free from danger." Early operation should certainly save those that could get well without operation and some others that might be lost by delay.

Causation and Treatment of Thrombosis Occurring In Connection with Typhoid Fever.

Wright and Knapp (The London Medical Lancet, Dec. 6, 1902) have made a series of experiments to determine coagulation time and blood-content in calcium salts in the acute stage of typhoid fever during convalescence and in normal persons. During the acute febrile stage there is a diminished coagulability, and this may explain the serous hemorrhages occurring from comparatively small intestinal lesions. During convalescence there is a marked increase in coagulability. A similar increase of calcium salts is noticed in convalescence. The therapeutic inference is the advisability of administering at any time, when coagulability may be above normal, some agent that may diminish this hypernormal state, and thus oppose an obstacle to the deposition of fibrin and consequent thrombosis. Citric acid was the agent selected by the authors, and they present certain statistics, showing how the administration of this remedy in certain cases was followed by a decalcification of the blood and a consequent diminution of its coagulability. In searching for the cause of thrombosis in typhoid fever, the attention of the authors was fastened on the fact that their tables showed that the amount of calcium salts in typhoid convalescents was greatly in excess of that in the normal blood. This fact suggests that the increased coagulability during the convalescent stage may be depended upon an excess of lime salts. Evidence pointing in the same direction is afforded by the circumstance that the blood coagulation times of typhoid patients, after the content of their blood in lime salts had been brought within the limits of the normal, were longer than those of normal bloods, instead of being shorter, as we should expect them to be if the increased coagulability were dependent upon an increase in the albuminous elements which enter into the composition of the fibrin. When we consider the source of the excess of lime salts which appears to be present in the blood of the typhoid convalescents, we must conclude that such excess comes from cows' milk, so extensively used in the typhoid dietary. Hence we may, in addition to giving the citric acid, decalcify the milk by adding the proper proportion of citrate of soda. say one to two scruples to the pint of milk.

On Colon Catarrh.

Wilson (British Medical Journal, Dec. 6, 1902) includes under this head the following morbid conditions: (1) Simple acute catarrhal colitis; (2) Subacute and chronic simple catarrh of the colon intermediate between one and three; (3) The so-called "mucomembranous colitis," also called "membranous colitis;" (4) Mucous colic; (5) True catarrhal typhlitis. The various types are found to pass into one another. Catarrhal conditions of the colon manifests itself by altered function of two kinds. (1) Abnormal secretory activity. (2) Abnormal motor activity. With regard to the mucus passed by the bowel, there is very great variety. Catarrh of the colon is due to irritation. The irritant may be mechanical or chemical, or of a more complex nature. A most important part is played by gout and the arthritic diathesis in the etiology of the subacute and chronic forms. Another possibility as to the causation is that microorganisms play an important part in the intestinal irritation. It is probable that the neurotic element is only an early symptom of the complaint and not its cause. The primary symptoms of colon catarrh are: Excessive secretion of mucus; excessive irritability of the muscular coat of the colon, causing it to harden and become palpable. 3. Constipation, due probably to both altered secretion and altered motility of the colon: pain—often colicky—and tenderness of colon; nervous phenomena, especially well-marked mental depression, often hypochondriasis, sometimes true neurasthenia. If the case be recognized early enough, and appropriate treatment by diet and medicine be given, the prognosis as to complete recovery is very satisfactory. The key to treatment of this disease is the recognition of its relation to gout and the "uric-acid" diathesis, and also that it is a catarrh of the colon. The salicylates should be given. All foods liable to leave an indigestible solid residue should not be touched. So brown bread, porridge, figs, etc., should be avoided. In old cases, enemata of saline solution or boracic acid are sometimes valuable. It is most important to recognize cases early.

Instructions to Those Having Gonorrhoea.

Dr. Cabot (New York Medical Record, December 20, 1902) says gonorrhœa is a local contagious disease which requires treatment until the physician pronounces you cured.

To avoid infecting others and to prevent complications, a bubo, stricture, swollen testicles, etc., the following rules should be observed:

1. During the first few weeks walking should be limited. When the discharge is profuse you should keep off your feet as much as possible.

2. Do not use alcohol in any form, as it always prolongs the disease. Drink milk, tea, Vichy, or seltzer, and from six to eight glasses of water during the day.

3. Avoid all sexual relations until you have been pronounced cured by your physician, as the disease may be given to a woman even after the discharge has apparently ceased. When it is present you should avoid sexual excitement, as erections always aggravate the disease.

4. Always wash the hands after handling the parts. The discharge, if carried to the eyes, will cause blindness.

5. Sleep alone, and be sure that no one uses any of your toilet articles, particularly towels and wash cloths.

6. Never lend your syringe to any one, and as soon as you are well destroy it.

7. Be sure that the bowels move every day. If they are inclined to be constipated, take a dose of Rochelle salts before breakfast.

8. Do not use mustard, pepper, horseradish or stimulating sauces on your food.

He further says I believe that all dispensaries and hospitals should adopt some such plan to help educate the public in this matter. We can in this way accomplish much, and gradually, as the public learns of the dangers attending persons who are infected with syphilis or gonorrhœa, we shall have less of these dangerous and often fatal diseases. It seems to me that this is the most rational and practical method of educating an ignorant public. I believe, if such a system becomes general, we shall, in time, have an entering wedge toward controlling venereal disease, and, as a result, also of prostitution.

New Method of Treating the Persistent Vomiting of Pregnancy.

Condamin (Medical Press and Circular) gives a new method of treatment of persistent vomiting of pregnancy. The writer says that, although it cannot be said that the principle is altogether new, it is still so excellent that it should be more widely known than it is. The author sees in such vomiting a sign of intoxication and an indication for removal of the toxic substance, whatever it may be. It is his constant endeavour to provide a substitute for the induction of the abortion that such cases generally end in. For some time past he has invariably been able to dispense with this by adopting the following line of treatment:

Absolute abstinence from food for from eight to ten days; daily injections into the

rectum of three to four liters of artificial serum in quantities of 300 grammes, with or without the addition of opium; in case of absolute intolerance on the part of the rectum, hypodermic infusion; after ten or twelve days' abstinence from food, gradual return to feeding by the mouth.

he Action of the X-Ray and Its Uses in Therapeutics.

Wm. B. Snow, M. D. (Jour. of Advanced Therapeutics, November, 1902).—It matters little what is the source of the current which energizes the tube, so long as it excites the character of the ray applicable to the tube at hand. For deep-seated growths tubes of very high vacuum are required, and as a static machine can excite such a tube with less risk to its life, it is preferred to a coil in such cases. Tubes of low vacuum are only efficient in superficial cases; however, they are not superior to tubes of high vacuum for the same cases.

The characteristic effects of the rays upon living tissue following a prolonged exposure or series of short exposures are: (1) Induction of impaired nutrition marked by alopecia and atrophy of the cuticle; (2) irritation evidenced by an itchy sensation; (3) inflammatory action, marked by tanning dermatitis or deep necrosis, the latter followed by sluggish reaction and retarded restoration. The inflammatory reaction depends upon length and frequency of exposures, character of the ray and idiosyncrasy of patient; (4) the rays destroy some forms of germ life most probably by rendering the pabulum unsuitable for growth; (5) the effect upon normal tissues is first to stimulate normal action due to the vibratory effects of the rays or of the ether in the presence of the rays; (6) short exposures induce activity of normal tissue cells, which in some cases, supplant abnormal tissue elements, without showing evidence of disintegration; (7) longer exposures destroy the abnormal tissue elements of low vitality, but do not seriously effect normal tissues unless the exposures are too prolonged; (8) abnormal tissue elements thus exposed break down and disappear through the natural channels of absorption or sloughing; (9) when tumors of considerable extent are rayed, rarely, if ever, over small tumors, a marked reaction occurs, with fever and varying degrees of prostration, and in a recent case of cancer treated by the author a severe diarrhea followed the sixth exposure—it is probable that this reaction arises from breaking down of devitalized tissue and autoinfection, which is often marked during the sloughing process; (10) X-ray causes in the deeper structures, as well as the skin, contraction of the muscular coats of the arterioles, relieving congestion and the consequent pain, as well as diminishing hemorrhage in some diseased conditions.

Some of the Orthopedic Conditions of the New-Born Demanding Early Surgical Treatment.

Charles F. Painter (The Boston Medical and Surgical Journal, September 11, 1902).—Leaving to nature the correction of many manifest defects in this author's opinion is a practice too commonly followed by all classes of physicians. He cites clubfoot, a common congenital deformity, as being especially amenable to early treatment. Frequently pulling the foot to the valgus position and applying the proper brace and straps should correct the deformity as early as the third or fourth week; but the use of the brace and straps must be continued for several months and the manipulation for a year or a year and a half. When walking is begun, shape the shoe-soles so as to favor the valgus position.

Flatfoot demands no attention until the child begins to walk, and then by slightly raising the inner side of the shoes worn a cure is easily effected.

Congenital dislocation of the hip, he says, usually goes unrecognized until walking is attempted. In many cases treatment avails little. Ankylosis of the hip is a frequent result when the open incisions are done, and a recurrence of the dislocation is more frequent following this operation than when the bloodless method is practiced. The latter is to be preferred and the attempt at the reduction should be made near the end of the third year.

Hematoma of the sterno-mastoid, which probably is mechanical and not due to syphilis, as has been supposed, gives rise to torticollis as its principal symptom. Manual correction is all that is necessary.

In spastic paraplegia treatment combating the tendency to contractures should be begun early and persisted in through the entire growing period.

Obstetrical paralysis should be treated early with a bandage to overcome the characteristic deformity, then after the first few months massage and electrical treatment should be begun, and then later active and passive muscular exercise added. This is always due to injury of the brachial plexus, but congenital and traumatic dislocations have been mistaken for it.

Harelip should be operated on during the first year, but the cleft palate operation is better done by waiting until such as an obturator can be fitted.

Hernie that occur during the first year can usually be permanently cured by a truss. Anyway, if the truss is controlling the sac

defer the operation when it is necessary until the fourth or fifth year.

Congenital abscence of tibia or femur is referred to as being simply a question of mechano-therapeutics, and unclosed bronchial clefts as purely surgical. The results of operative interference in spina bifida and meningocele have been poor.

Genito-urinary defects, such as exstrophy of the bladder and epi- and hypo-spadias, require early surgical treatment. Many repeated operations will be necessary, but the final results are gratifying.

Pyelitis in Infants—Symptoms and Treatment.

Thomson (Scottish Medical and Surgical Journal) thinks this is rather a frequent disease. He says, undiagnosed, it is an alarming illness, but under proper treatment it is a very curable one.

The diagnosis depends mainly on the presence of pus and bacilli in the urine along with high fever, and on the absence of other causes of these conditions. The chief facts, apart from the examination of the urine, which suggest that a case may be one of pyelitis, are:

1. The pyrexia and the extreme distress, without any sign of organic disease in any other system sufficient to produce them.

2. The presence of rigors, especially if the patient be a child under two years, if malaria can be excluded.

3. Any local tenderness or pain or micturition serves, of course, to draw attention to the urinary tract.

The treatment, in the main, consists of rendering the urine neutral by the administration of alkaline remedies as speedily as possible, and in keeping it so until all the symptoms have disappeared. When this is thoroughly carried out the pain and uneasiness vanish, and the temperature rapidly falls and remains below normal. After the pus has ceased to be present in the urine with ordinary tonic measures the urinary tract seems able to defend itself; the organisms cease to cause trouble, and in time they also doubtless disappear.

The alkaline used by Thomson is citrate of potash. In less severe cases 24 grains per diem may suffice for this purpose, but it is best to begin with 36 to 48 grains in the twenty-four hours. Although this amount of alkaline is extremely beneficial to the local conditions and rapidly allays both the pain and the fever, it always exerts a depressing action on the general system, and the child's temperature becomes subnormal; it seems flabby and nauseated, not infrequently vomits, and may have diarrhea. No harm, however, follows this temporary depression, and the medicine should be steadily persevered with.

Antiseptics, when given alone in these cases, are not very efficacious; but in addition to the alkaline treatment they are sometimes distinctly helpful in accelerating the disappearance of the pus. Most good has been seen from salol, in doses of one or two grains. Urotropin has seemed much less active in these cases than it often is in other cases of pyuria in which the urine is alkaline. Creosote was found very useful in one case by Baginsky.

Antipyretics are quite unnecessary if the alkaline is given freely enough. It is important that the child should be encouraged to drink as much fluid as possible.

A few other facts of importance concerning this complaint are:

1. In infant girls, when debilitated by any cause, acute pyelitis may be set up by the immigration of the bacillus coli from the bowel.

2. Unlike any other disease (except malaria), it frequently causes rigors, even in young babies.

3. The presence of anal excoriations has possibly an important etiological significance in these cases.

4. The prognosis (when the case is treated) is favorable, although complete recovery is sometimes delayed for many weeks.

Lung Complications in Appendicitis.

Sonnenburg (Medical Press) says that this complication is not frequent. The affection is probably of embolic origin. Ether narcosis certainly does not set up the disease. Exposure to cold is not of any importance. Hypostatic pneumonia is rare. Every exudation near the vermiform appendex readily gives rise to embolism. In lung affections the embolism is never from the portal system, but from the vena cava. There are thromboses and embolism in about five per cent. of operation cases.

The emboli are also of an infective nature. Emboli occur also in operations performed during the interval. Emboli might also occur during the after-treatment, through the formation of thrombi. The reason for this is to be found in the fact that patients of the better classes are very anxious and have flabby hearts, whereby disturbances of circulation are caused. The thromboses are caused by tearing of vessels when the appendix is being freed from attachments. Embolism of the pulmonary artery does not betray itself by any special symptoms. If the lung complication is caused by embolism no digitalis is to be given, but the patients must lie in a raised-up position, and morphine be administered.

Fractures of the Lower End of the Radius.

Roberts (Pennsylvania Medical Journal, June, 1902), says that the practitioner treating this condition should not feel satisfied with the position of the fragments until he has restored the concavity of the palmar and the flatness of the dorsal surface. He may make traction and counter-traction, with pressure on the back of the lower fragment, accompanied by sudden flexion of the wrist; he may make extreme dorsal extension, followed by extreme flexion, he may use his knee as a fulcrum, across which to bend the broken bone; or he may adopt some other form of manipulation. By whatever method, he should use enough force to do the work, and repeat the maneuver, if need be, until the concavity of the palmar surface is re-established and the posterior surface at the line of fracture made level.

Reduction of the fragments may be done without anesthesia, if the surgeon is quick and not afraid to use about all the power he can exert with his hands. The pain felt by the patient is great, but the quickness of the maneuver is such that the work is done by the time the patient realizes its severity. In fractures that have been allowed to go several weeks unreduced, it is better to administer a general anesthetic, because the setting or reduction is more difficult of accomplishment, and the maneuver may require unusual time and force, or need repetition. Anesthesia should always be employed, if the operator is so afraid of hurting the patient that he may slight the work.

When the fracture has been thus reduced, there is usually little or no tendency to displacement, and in many cases there is little actual need of a splint. A patient who could be trusted not to submit the forearm to muscular strain and not to fall upon it would probably do perfectly well if he simply wore a sling for three weeks. It is usually safer to apply a short, narrow, straight splint of wood, metal, or whalebone, to the back of the wrist from the middle of the forearm to the middle of the metacarpus; or a convex splint of about the same length to the palmar aspect of the forearm and wrist. The latter must accurately fit the arched lower portion of the radius, lest it do harm by forcing the replaced lower fragment backward into the position it occupied before reduction. In many cases a wristlet, three or four inches wide, made of adhesive plaster, is an excellent support, acting as a splint.

Buttermilk as Infant Food.

Baginsky (Pediatrics, November 15, 1902) has tested the value of buttermilk in one hundred and eighty-two children. The buttermilk was made from pure cream, soured by means of bacteria, so that the fat is extracted to a minimum.

To one liter 15.0 to 25.0 of wheat flour and 25.0 to 50.0 of cane sugar are added. With constant stiring the mixture is allowed to boil up three or four times. It is then poured into bottles and kept cool until used. Analysis showed that such milk contains: fat, 0.35 per cent.; proteid, 3.4 per cent.; sugar, 4.2 to 5.7 per cent.; starch, 0.26 per cent., and, further, that it is strongly acid, due in part to the presence of lactic acid.

The low fat content is especially noteworthy. The amount to be given was based upon the number of calories previously determined as necessacy for the requirements of breast-fed children. Average amounts for different ages are tabulated.

Of the hundred and eighty-two children one hundred and fifty did very well on the food. In many of the other cases various complications were present, and these children did not respond to any other method of feeding.

The writer concludes:

1. Buttermilk prepared as directed is a good food for acute and chronically sick infants.

2. It is well borne soon after attacks of acute dyspepsia and summer diarrhea.

3. In chronic diarrhea and enteritis it may be looked upon "as a life-saving preparation."

4, More observations are needed as to its use as an actual food for healthy infants,

5. In cases where its use was long-continued no disturbances of nutrition, such as rickets or scurvy, were developed.

Dyspepsia and Its Treatment by Antiseptics.

Rankin (British Medical Journal, November 29th) classifies dyspepsia as follows:

Acute dyspepsia. This is usually caused by some error in diet or interference with gastric secretion. Epigastric uneasiness is the initial symptom, soon followed by pain and nausea. If this is succeeded by vomiting, relief soon follows, otherwise abdominal distention, headache, vertigo, thirst, and heartburn become prominent. The bowels are usually costive. After some hours there is copious perspiration with a crop of urticaria.

Atonic dyspepsia. This is the most common variety of chronic indigestion. It occurs in badly nourished and anæmic per-

sons and results from a general want of power in the stomach. The leading symptoms are fullness and discomfort in the stomach after meals. Flatluence is a prominent feature, and is greatly aggravated by indigestible articles of diet. The tongue is flabby and undented and the bowels are invariably constipated. The pulse is feeble, the skin clammy and muddy, and there is persistent languor and mental depression. The urine is very acid.

Acid dyspepsia. This occurs in strong, active men, and is associated with an undue secretion or accumulation of hydrochloric acid. The appetite is vigorous, but some hours after eating there are epigastric pain, acid eructations, and nausea. Flatluence and languor are common, and the urine is alkaline. Paroxysmal attacks of pyrosis are common. The tongue is small, pointed, and abnormally red.

Nervous dyspepsia. This is dependent upon nerve exhaustion and occurs in neurotic individuals who are run down from overwork or mental worry. It is usually associated with nervous phenomena referable to other organs in the body. Headaches are of constant occurrence. The urine is copious and limpid. The symptoms are characteristically capricious. Sleeplessness is a source of great trouble, and the patients may be hypochonriacal.

Treatment. The writer calls attention to certain remedies used by him, and points out the special value which attaches to their combination with antiseptics. In most cases of atonic dyspepsia, marked relief is given by the administration of the following mixture, diluted with water, about an hour after meals: Dilute hydrochloric acid 15 minims; pure carbolic acid 2 grains; solution of strychnine (B. P.) 5 minims; tincture of ginger 20 minims; and glycerin ½ drachm. This may be advantageously followed by iron and quinine with strychnine and carbolic acid, given in pill form. Pepsin is not satisfactory in these cases. The administration of alkalies before food is of value only in mild cases.

In acid dyspepsia, bismuth carbonate in 30 grain doses, with salol 10 grains, sodium sulphocarbonate 15 grains, or carbolic acid 2 grains, gives excellent results. Strychnine and ginger may be added to the above, together with morphine, if there is much pain. Bismuth salicylate is a valuable preparation.

In nervous dyspepsia, the quantity and variety of food should be increased as rapidly as possible, and it is especially necessary to get the patient to take as much fat as can be digested. Zinc valerianate 3 grains; carbolic acid 2 grains; arsenous acid 1-40 grain; extract of cannibis indica ¼ grain—in pill form, taken after meals, is excellent in this form of the disorder.

Hair Balls and Other Concretions In the Stomach.

Fenwick (British Medical Journal, November 29th).—Certain concretions are apt to form in the stomach and give rise to severe abnormal symptoms accompanied by an abdominal tumor. They usually consist of hair, cotton, wool or string, but occasionally they are composed of vegetable fibre or resinous material. Hair balls of any considerable size are rare, the largest on record weighing 4lbs., 7 oz. The local effects of a concretion consist of dilatation of the stomach with ulceration of its mucous membrane; occasionally the viscus becomes adherent to the pancreas or abdominal wall. Of the twenty-four cases of hair ball reported, twenty-three were in women, the youngest of whom was eighteen years of age, the oldest thirty-four. There was never any evidence of mental disease. The habit of hair eating is usually acquired in early life when the hair is worn loose on the shoulders. Until the concretions attain considerable size and seriously diminish the capacity of the stomach, they rarely produce any symptoms. After a period of prolonged dyspepsia, the patients experienced severe epigastric pain after meals, accompanied by vomiting, and anæmia. In every case there is a large well-marked abdominal tumor—at first round, but later kidney-shaped. One of its principal features is its extreme mobility. The duration of the disease averages about fifteen years. With the exception of two cases, in which laparatomy was performed, all the cases have terminated fatally. In most death is due to ulceration and perforation of the stomach. Vegetable tumors are much less common than hair balls, and consist of fruit skins, fruit stones and stalks, or of fibrous roots. The symptoms and outcome are the same as in cases of hair ball.

Gastroliths occur in men addicted to alcohol, who have been in the habit of drinking varnish or polish. As a rule the mass is too small to admit of palpation.

In most cases of concretion the tumor has been taken for a malignant growth from which it can be diagnosticated by the age of the patient, the duration of the complaint, and the nature of the tumor mass. If the tumor is very small it might be removed by an emetic, but this is dangerous. In the case of large tumors, medicinal measures are useless, and recourse must be had to gastrotomy.

Treatment of Insomnia.

Skelton (Merchs Archives) discusses the various causes of insomnia under the following heads: (1) interferences with the normal withdrawal of stimuli of irritation of the sensory nerves; (2) irritation from visceral organs; (3) overactivity. irritable exhaustion of the cerebral neurons; (4) intoxications of the cerebral neurons; (5) hereditary unbalanced and irritable neurons. In the general management of a case of insomnia we can utilize one or more of the following agencies: 1. The induction of muscle fatigue by walks in the open air or by massage. Many people cannot sleep because their muscles are not tired and their nervons system is overexcited. 2. The clearing away of intestinal and hepatic accumulations by sodium sulphate and salicylate, combined or not with potassium citrate and lithia. This serves several purposes. Autointoxication is diminished, irritation from distended viscera is diminished, and circulatory equilibrium is aided. 3. The use of a hot bath. 4. Proper sleeping rooms. In regard to the exact action of hypnotics and narcotics on the nerve-cell, it is to be remembered that: first, the nerve-cell is especially rich in fat; second, that the narcotic action of alcohols and chlorine compounds is proportional to their fat solubility; third, that fusion and diminution of the granules of the cell occur after the use of narcotics; fourth, that these changes in the cell may interfere with function by altered chemical composition of cell-contents directly or by causing a retraction of dendritic processes and interrupting neurotic continuity. It is important to remember that all drugs of this class interfere with normal metabolism, that they are purely symptomatic in usefulness, that all are objectionable by reason of secondary and side effects, and that they are used by reason of ignorance of the underlying cause of the symptoms or our inability to control these causes. In a general way we may formulate the indications for their use, viz.: Insomnia from pain: Morphine, coal-tar products, and large doses of chloral. Insomnia from increased reflex irritability: Chloral, trional, sulphonal. Insomnia from delirium and chronic insanity: Hyoscyamine combined with morphine. Insomnia from "nervousness," "worry": Bromides, given in sufficient doses,—20 grains three or four times in the daytime,—are incomparably the best and safest hypnotic. It is to be reflected that morphine increases reflex irritability. The chlorals depress the medulla, and are dangerous in heart and vascular diseases and lung, kidney, and stomach irritability.

Miscellaneous.

A Successful Term; Work of the University Medical Department at Raleigh.

A most auspicious beginning is reported from the Medical Department of the University of North Carolina at Raleigh. The first half-session shows an enthusiastic faculty, a number of earnest, working students and a prosperous management of the school's affairs. Clinical material has been abundant, amply sufficient for each student to receive individual instruction in its true sense, while a combination of the lecture, quiz and ward class has proved a most successful teaching system. Over 190 patients have been treated at the Free Dispensary, with an average of 8 to 10 visits at each hour. Students have access to the Rex Hospital and St. Agnes' Hospital and the wards of both these institutions are in sole charge of the faculty of the Medical School during the entire session, each teacher in his own department. The building devoted to the work contains lecture rooms, office, dispensary and a well equipped clinical laboratory and is in the most convenient part of the city. Since the two years' course given at Raleigh forms the last two years of medical study, the instruction there is largely clinical, the fundamental branches being taught in a thorough two years course at Chapel Hill.

Following is the complete list of the faculty of this advanced department: H. A. Royster (Dean), Gynecology; A. W. Knox, Surgery; W. I. Royster, Medicine; R. H. Lewis, Eye and Hygiene; K. P. Battle, Jr., Ear, Nose and Throat; A. W. Goodwin, Clinical Medicine and Dermatology; H. McK. Tucker, Obstetrics and Pediatrics; J. W. McGee, Jr., Chief of Dispensary; R. S. McGeachy, Assistant in Surgery and Gynecology; Wm. Moncure, Jr., Assistant in Dispensary; Wm. DeB. MacNider, Clinical Pathology.

Beta-Eucain, a Study of Its History and Practical Use, Together with Personal Experiments and Observationn.

By Dr. Marcinowski, of the Woltersdorfer Schleuse Sanatorium, Abstracted from the Deutsche Zeitschrift fur Chirurgie, Vol. 65, Nos. 5 and 6, October, 1902.

In an exhaustive treatise comprising 70 pages, the author finds, after reviewing the experimental and clinical reports on the subject and from his own experience, that, especially in minor surgery, local anesthesia by means of Beta-Eucain is far preferable to that by cocain, or to "freezing" with ethyl chloride. The last-named method, he believes, is used chiefly because of the dangers which accompany the use of

cocain; but its disadvantages are so great that—now that we possess a drug which disposes in the happiest way of all the objections to the use of Cocaine—injection anesthesia should invariably be employed.

Dr. Marcinowski's conclusions are:

1. Beta-Eucain is absolutely non-irritant. When it is not, the solution is too strong or not correctly prepared. The solution should be approximately isotonic to the body fluids and of the temperature of the blood. Isotonicity is to be obtained by the addition of sodium chloride in the proportion of 0.6% for the stronger and 0.8% for the weaker solutions.

The injection of a Beta-Eucaine solution into non-inflamed tissues is painless. By keeping within the limit of 5% concentrations, swellings and infiltrations of the injected area may be largely avoided.

2. Beta-Eucain is at least 3.75 times less poisonous than cocain or Alpha-Eucain.

3. In contradistinction to cocaine, Beta-Eucain has the following advantages:

a. It occasions a very moderate vascular dilatation.

b. It neither changes the dilatation of the pupil, nor influences the accommodation of the eye or its reaction to the influence of light.

c. It hardly diminishes the tenus of the bulb.

d. The cornea remains intact.

The vasoparalytic after-effects of cocain, and more especially the justly dreaded secondary hemorrhage that occur after its employment, may be avoided by the use of Beta-Eucain.

The hyperæmia incidental to Beta-Eucain favors healing in ocular operations, but its use is contraindicated in iritic processes. On the mucous membranes this hyperæmia does not interfere with the most delicate differential diagnosis (cystocopy and endoscopy).

4. The anesthetic action of Beta-Eucain is about equal to that of cocaine. The concentrations and dosage most advisable to employ are:

In ophthalmology, 2%, applied by instillation; in the urethra and bladder, 2%, up to 2 ozs.; in the nose, throat and pharynx, 5 to 10%, by spray or brush; on mucosæ and wounds, 5 to 10%, as much as is required; in dentistry, 2 to 5%, 15 grains. For infiltration anesthesia after Schleich, 1:1000 to 1%, as much as required; after Reclus, 2%, as much as required; after Braum, 1:1000, up to 4½ grains. For regional analgesia, 2 to 5%, up to 4½ grains; after Braum, 1%, up to 2¼ grains.

5. The hydrochlorate of Beta Eucain is soluble to the extent of 3½ to 5 parts in 100 parts of water; supersaturated solutions can be made with the help of warmth. Solutions at blood temperature should invariably be employed.

The solutions keep indefinitely, and can be repeatedly sterilized by boiling without the slightest chemical change.

Beta-Eucain has a moderate antibacterial action.

From all that has gone before it follows that, with the exception of the few contraindications referred to, Beta-Eucain is absolutely superior to cocain in every department of medicine, and is invariably to be preferred to it. It follows also that where Beta-Eucain could have been employed, the occurrence of cocain poisoning must be regarded as a blunder.

The author appends an index to the literature on Eucain referred to in his report, comprising over 200 communications.

The Treatment of Malnutrition.

By J. S. Moremen, M. D.

The treatment of malnutrition is a matter of the first importance, since the correction of this factor will, in a great many instances, put our patients on a plane where recovery is possible.

The following brief clinical history will serve to give one an idea of the value of the treatment, here given endorsement:

Case 1. Child age four. This child was delicate, and extremely thin. His loss of flesh dated back four months previous, when he was sick with pneumonia. When first seen by me he was pale, very weak, and had no appetite. I at once put him on teaspoonful doses of Trophonine, and his progress toward recovery was without draw-back after this. In three weeks time he was fully recovered, and since then has had excellent health and strength.

Case 2. This woman, age 32, has suffered a miscarriage six weeks before, and had had many profuse hemorrhages. When I was called she was very weak and anæmic, and had lost flesh very considerably; she had no appetite. I ordered her to have a wine glass full of Trophonine, four times daily. This acted in the happiest and most speedy manner. The patient gained strength, and could declare herself stronger the second day after beginning the Trophonine. She took it three weeks, and at the end of that time she had red lips, had regained her flesh, and was in every way well.—The Dietetic and Hygienic Gazette.

Senile Debility.

℞.	Syr. Hypophos. Comp.	3 oz.
	Celerina (Rio)	2 oz.
	Acidi Phosphorici Dil.	1 oz.

M. Sig.: Teaspoonful four times daily.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Pus in the Pelvis Depending Upon, or Complicated by, Appendiceal Disease and How to Deal With It.

Dr. John B. Deaver, by invitation, presented a paper on Pus in the Pelvis Depending Upon and Complicating Appendiceal Disease in the Female; Methods of Treatment.

Appendicitis may cause a pelvic abscess in three ways. (1) By the extension of a purulent collection from the right iliac fossa to the pelvis. (2) By appendiceal abscess in the pelvis with the appendix hanging over the ileo-pectineal line or entirely in the true pelvis. (3(By infection of the tube and ovary with involvement of both appendix and adnexa in purulent exudate. In the rapid cases of appendicitis with general peritoneal infection, the pelvis is as a rule filled with sero pus, but the majority of instances of pelvic abscess with an appendix above the ileo-pectineal line are due to a secondary involvement from the primary focus. The percentage of cases in which acute appendicitis exists in the female has been variably estimated by different observers and with wide variation. During 1901, of 238 causes of acute appendicitis in the adult, operated upon by the writer, 34.8 per cent. were women. The error most often made in diagnosis is that between pyosalpinx and appendicitis. This error is the more serious, in that appendiceal disease is progressive in character and demands operation during the earliest stages, while a salpingitis which is usually due to gonorrhœa does not require an early operation because of the limiting nature of the disease. Pelvic abscess due to infection ascending the tubes will present symptoms distinguishing it from appendiceal abscess in most instances. A small ovarian cyst on the right side of the pelvis, twisted on its pedicle, may simulate appendicitis in the pelvis with abscess. Infection of ovarian cysts by a diseased appendix has been reported. Should the resulting hematocele of a ruptured ectopic gestation become infected, the differential diagnosis is rendered very difficult. A very interesting phase of appendicitis, is when the right tube or ovary may become infected from a diseased appendix in the pelvis. Of the 83 cases of acute appendicitis in the female, operated upon by the writer at the German Hospital, disease of the adnexa was coincident. In one, a cystic condition of both tubes and ovaries was present; in another a double pyosalpinx with an infected appendix. In three cases an acutely congested and inflamed appendix was undoubtedly the cause of a right-sided pyosalpinx without any disease of the left side. The treatment of appendiceal abscess will depend upon the location of the pus and the condition of the patient. Where the abscess is high enough in the pelvis it may be reached by an incision in the loin and reflecting the peritoneum from the iliac fossa, opening and evacuating the abscess below its upper limits. The cavity is then washed out and packed with gauze. An extra-peritoneal operation of this nature is only to be advocated because of the size and situation of the abscess and the infectious nature of the appendiceal pus which may render a complete operation more hazardous. If the condition of the patient is desperate, i. e. if the anemia and sepsis are so marked that a prolonged operation would cause the death of the patient, the abscess may be evacuated by drawing the cervix well forward and freely incising the posterior wall of the vaginal vault, opening the peritoneum and evacuating the pus. Irrigation should not be practiced, and the cavity simply drained with gauze. Whenever possible the abdomen should be opened, the intestines walled off with gauze, the appendix and any infiltrated exudate or serum or omentum ligated and excised, and the tubes examined, especially on the right side. In many instances they will be diseased and may have to be removed, but if possible should be left in situ, after walling off with sterile gauze.

Pus in the Pelvis as a Result of Bone or Joint Necrosis, Diagnosis and Treatment.

Dr. N. Augustus Wilson, by invitation, briefly presented the orthopedic aspect. He said that there were three principle sources of pus in the pelvis having its origin in tuberculosis bone, i. e., Potts' disease, hip and sacro-iliac disease. Emphasis was laid upon the difficulties in diagnosis in cases where disease of the pelvic organs coexisted with tuberculous bone disease. The distinctive evidences of the disease of the spine must be relied upon in Potts' disease. In hip disease pus in the pelvis can only occur in those extreme cases where the acetabulum is perforated and even then the pus usually tends to a downward course and outlet. Sacro-iliac disease is the most difficult to differentiate of all bone and joint diseases, because disease comes on in adult life and insidiously, is often caused by pregnancy and therefore its presence is overlooked until its extensive ravishes assume such shape as to render its recognition beyond question. Attempt was made to remove the idea of the hopelessness of tuberculous bone and joint disease, which conception has done more than anything else to interfere with complete recovery by postponing the application of proper treatment. It is proper to consider tuberculous

bone disease as being such only when the conditions are in the so-called incipiency. That conditions arising after that period should be classed as results of not necessarily a part of the disease, and the occurence of which should always be viewed as avoidable.

Vaginal Section in Suppurative Disease of the Pelvic Structures. Indications and Technique.

Dr. E. E. Montgomery read a paper on Vaginal Section in Suppurative Diseases of the Pelvic Structures; Indications and Technique; in which he said the operation is not suitable for every case, and will be chosen or rejected largely according to the experience and predilection of the individual operator. If he were obliged to choose a procedure which should be applied to every case, he would be compelled to accept the abdominal rather than the vaginal. Where there is a large collection in the pelvis, however, the vaginal route affords a more ready method for its evacuation with less injury to the general health of the patiert, and affords ready drainage. The operation should not be chosen in cases of undilated vagina, nor where the suppurative collection is situated in the abdomen and does not dip down into the pelvis, nor where it is confined to only one side of the pelvis. It should be the operation of election when the retrouterine pouch is the seat of a large collection, whether this be secondary to tubal disease or result from a degeneration and infection of a pelvic hematoma. It should be the only procedure considered when the condition of the patient is so precarious that a severe operation is undesirable. The experienced vaginal operator would prefer it when both ovaries and tubes are so evidently destroyed that their retention would be a menace to the life and future health of the patient.

The Indications and Contraindications for Drainage in Operations for Suppurative Disease of the Pelvic Structures.

Dr. Baldy presented a paper on Drainage in Operations for Supperative Disease of the Pelvic Organs,

In a few exceptional instances, there is no other condition in the pelvis than suppurative disease, in which drainage is a procedure. Drainage in nonsuppurative diseases is an admission that the surgeon has not yet learned the value and use of the needle and catgut. In cases of ovarian abscess of the uterine wall (where it is justifiable to remove the uterus), in but rare instances is drainage necessary. The one thing which should most often decide the surgeon to drain is the acuteness and virulence of the infection. An acute suppuration of the pelvic organs, either gonorrheal or puerperal, should be allowed to advance so far into the subacute stage as is consistent with the safety of the patient before an operation is performed. When in doubt the decision is generally against drainage. Suppurative disease of the pelvis itself, such as puerperal abscess free in the pelvic connective tissue (broad ligaments, etc.), and pus in the pelvis as the result of bone or joint necrosis will always demand drainage, and the sooner it is established the better. In the first two conditions vaginal drainage is the safest and best. The writer does not drain more than possibly five per cent. of his cases. If drainage is not instituted in a given case, other causes being excluded, the knowledge that the case was one for possible drainage, the temperature and pulse together with the vaginal examination will render the nature of the trouble perfectly apparent, and will demand the opening of the vaginal cul-de-sac into the peritoneal cavity, irrigation and the introduction of a drainage tube. In his judgment the risks of pelvic surgery are reduced to a minimum and the best interests of the patient subserved by dispensing with the drainage tube whenever possible, especially when it is true that where an error of jndgment has been committed the mistake is so readily and safely corrected.

Dr. Richard C. Norris: I am very sorry not to have had the pleasure of hearing Dr. Deaver's paper. Dr. Noble has given me an outline of the points of his paper with which we doubtless all agree. I cannot help being impressed with the difference between our papers and discussion at the present time and those of a few years ago. The fact is that the ground has been gone over so thoroughly and the facts thrashed out make our opinions and our practice more nearly alike at the present time than ten years ago, and we have come to believe that the problems of gynecology have almost reached definite solution. That, I think accounts for the lack of earnest papers and enthusiasm in the discussions of these subjects such as we witnessed a few years ago. Individual enthusiasm in those days ran riot. To-day a dignified demeanor attends our discussions and make us less aggressive because we are more of the same mind.

The experience of all men who deal with pelvic diseases is to find a certain proportion of appendiceal inflammations associated with inflammatory conditions of the tubes and ovaries. A recent article which no doubt most of us have read in which expert bacteriological and pathological examinations were made of the appendices removed at the time the pelvic inflammatory

JUST NOW

when the debilitated and poorly nourished are subject to coughs and colds, the remedy of most value is

GRAY'S Glycerine TONIC Comp.

Its specific action on the respiratory organs is second only to its unique value in malnutrition and general debility

THE PURDUE FREDERICK CO.
No. 15 Murray Street, New York

PRUNIER'S

HYPERPHOSPHINE

REGISTERED

(C_3 H_7 $CaPhO_6$, $2H_2$ O)

Pure Phosphoglycerate of Lime

Prepared according to the original process of MM. Portes and Prunier.

INDICATIONS.—In all cases of weakness by Anæmia, Neurasthenia, Headache, Neuralgia, Nervous Cough, General Debility.

HYPERPHOSPHINE *is non-toxic.*

HYPERPHOSPHINE *is supplied in three forms:*
Granulated, Syrup, *and* ***Wafer-Cachets***

When prescribing, specify which of the above is wanted.

E. FOUGERA & CO., Sole Agents, New York

conditions were dealt with, shows a strikingly large proportion of associated lesions. Kelly's recent inquiry shows that most all surgeons remove even the slightly affected appendix when the abdomen is opened for any other cause, and that many surgeons justify the removal of the normal appendix when the abdomen has been opened for other affections. These opinions and practice make a distinct advance in the gynecologists' conservative labors.

My own experience with pus due to bone lesion is a limited one. I have records of two cases in which the traumatism of labor or the use of instruments, followed by infection, has produced bone lesions with production of pus giving rise to symptoms requiring the application of the principles of drainage.

As to vaginal section and section after celiotomy, I believe the majority of men who are doing active, aggressive work are pretty much of the same opinion. The limitations of both are growing more and more narrow. Dr. Montgomery has pointed out the indications for vaginal section in pelvic inflammatory conditions in women. The keynote of the whole problem is accurate diagnosis. Large collections in the desperately ill, we all agree should be approached through the vagina. If we could in all cases of chronic lesions make an accurate diagnosis of visceral adhesions and disseminated foci of suppuration, the selection of the route for operation would be clearly indicated. The most enthusiastic vaginal operator will sometimes go far afield in his diagnosis even after the vaginal section has been completed. Vaginal incision certainly can produce drainage and will relieve large collections of pus, and there are few practicing gynecologists who would not select such a route for patients desperately ill. Localized collections of pus in the tubes, ovaries and intestines may be beyond our reach by the vaginal route; there may be serious lesions of the bowel or appendiceal complications in which cases we work blindly, and I am far from convinced that vaginal section can accomplish such complete work, or that convalesceuce is quicker than after operation through the abdominal route. Drainage may be more readily secured than by the old method of the glass tube, and yet I must confess that I believe in some of the cases I have studied in Landau's clinic and in my own work, there were once in a while undetached pockets of pus, and a stormy convelescence which would have been avoided by operation through the abdominal route. Where there is doubt as to the exact lesions the abdominal route offers greater advantages.

A man may pride himself upon his diagnostic power in determining the exact character of the lesions in the pelvic cavity, but he will err sometimes. I shall never forget the lesson taught me in connection with a case when I was a resident physician in Blockley, in which the diagnosis of impacted gall stones had been made. Gall stones were not discovered at the operation performed by and in the presence of three of our most distinguished surgeons. The patient subsequently died, and so thoroughly convinced was the medical man (Dr. Osler) of their presence that he hunted up the post-mortem specimens, and gall stones were found in spite of the surgeons' failure to find them through an abdominal incision. I shall never forget the remark of dear old Dr. Agnew who was present at the operation, that "It is sometimes pretty hard to tell what is under the skin." The sense of sight and touch are surely better than touch alone.

Regarding drainage, I believe there was a time when we drained cases because we followed our leaders. The necessity for drainage is often a question of technique. Many may not employ drainage when others not so skilful in their technique would risk the patient's life without drainage in some cases. As a man advances in his operative career he gains an experience and skill which teach him to deal deftly with raw and bleeding surfaces. He learns to make hemostasis complete, to prevent or repair visceral lesions, to avoid spreading infection, and thus his drainage tube or gauze is less frequently used, and the convalescence of patients is more satisfactory. The wide application of hysterectomy in these old pelvic inflammatory cases shows this principle. Formerly glass tube after glass tube was used. Now when we resect the uterus and ligate the blood vessels in the blood to be a nidus for germs, and drainage is not required. As our technique has changed, so have changed our habits of practice as to drainage. I believe it is a growing practice among operators to drain through the vaginal vault when drainage is necessary. The bacteriologist at the operating table can tell the surgeon the kind of infection present, but he cannot tell the degree of virulence of the germ he finds under his lens, nor is the power of resistance of the patient known to a certainty. The surgeon, therefore, cannot always by such examination determine whether or not drainage must be used. Dr. Penrose and Dr. Baldy, working side by side in the same hospital put to the practice test this method. The former utilized it, the latter disregarded it, and the differences in mortality and morbidity showed that, those bacteriologi-

Thiocol Roche

in

Winter Cough, Bronchitis, Phthisis.

Professional Reports:

1. "Thiocol Roche will displace all other creosote-guaiacol derivatives."
2. "No other medicament produces such striking results."
3. "Excels all other guaiacol preparations and all the compounds of creosote in its high capability of being absorbed."
4. "Decidedly effective influence on the tuberculous process."
5. "The favorable action of Thiocol Roche becomes manifest very soon."
6. "Has an unmistakably favorable influence on the organic chemistry in general."

Dosage:

THIOCOL ROCHE POWDER: 5 to 20 grains three times a day.
THIOCOL ROCHE TABLETS (5 grain): 1 to 4 tablets three times a day.
SIROLIN (Syrup Thiocol Roche containing 6 gr. to fl. dr.): 1 to 3 teaspoonfuls 3 times a day.

MAY WE SEND CLINICAL REPORTS?

New York
University Place

MERCK & CO.

Chicago Branch
227 Randolph Street

cal tests had little or no practical value. One's own experience, judgment and skill are more to be relied upon. Doubtless errors cannot always be avoided when the patient's illness and the local lesions indicate virulent infection with the coli communis or streptococcus, drainage will often be necessary. The question of opening the vaginal cul-de-sac for primary or secondary drainage is one which comes to every operator. I prefer to drain into the vagina when drainage is employed. Once in a while a collection of blood or serum remains and is infected. Incision of the cul-de-sac, several days washing out and packing will be followed by prompt convalescence. I have done that several times, and I think men who have departed from the routine drainage when there was inability to determine at the time of operation that primary drainage was necessary.

To recapitulate: It is my conviction that we will drain less than formerly. It is my experience that when drainage is indicated, the vaginal route used freely accomplishes the most. The glass drainage tube in pelvic surgery has rapidly disappeared and probably will soon be a curiosity. Men who operate by choice through the vagina accomplish excellent results in a great many cases because of their skill, their judgment and their accurate diagnosis. Their failures would, I believe, be less with the same skill and judgment working through an abdominal incision.

The recent studies of the frequent association of the appendix with pelvic inflammations and the necessity for surgical attention to even insignificant lesions of the former are a distinct advance in our work. While some operators may consider the removal of the appendix, under the conditions named, aggressive or even meddlesome surgery, I believe finally we will learn that it is conservative work, the credit for which will belong to gynecology.

Dr. George G. Ross: It has been a very great pleasure to listen to the discussion of the subject of pelvic suppuration as it has been treated to-night. There seems to be a radical difference in opinion as to the value of drainage. In pus of appendiceal origin we have an entirely different problem to solve. If there is pus in the pelvis due to appendicitis the question of whether or not we will drain has been decided before the surgeon opens the abdomen. If the patient's general condition permits, through drainage, a search for and removal of the appendix are wise things to do. That the appendix can be removed in the majority of acute attacks of appendicitis associated with abscess formation has been demonstrated conclusively. Search for the organ will often reveal a secondary collection which would otherwise have been overlooked. Another reason why the appendix should be removed is that when plastered down against the posterior wall of the right iliac fossa its anterior surface forms part of the abscess wall. The posterior portion is in the same inflammatory condition as the anterior, and from its contact with the post-peritoneal lymphatics there is a direct communication with the general lymphatic system, which not infrequently costs the patient's life. The great point to be made in this question of pelvic suppuration is whether the suppuration is due to appendicitis or to disease of the adenxa. The dissimilarity of the infections of the two diseases is a valuable lesson pointed out to-night, for on the one hand we encounter pus of a low grade of virulence while in the case of the appendiceal infections we have to deal with pus whose destructive possibilities are as great as any met with in the human organism.

Dr. J. T. Rugh: I have been especially impressed with one feature of the papers: the great variety of causes that act to produce pus in the pelvis. It may be from an internal or from an external cause, and as indicated by Dr. Norris, the keynote of the treatment lies principally in the diagnosis. I feel scarcely competent to discuss the subject from the standpoint of the gynecologist, but I should like to allude a little more fully to one or two points brought up by Dr. Wilson as to the diagnosis of collections of pus In the pelvis from bone lesions. The constitutional symptoms which accompany bone affections and formations of pus complicating them, are not so severe as those which come with infections from other causes. In the first place, the material which results from the destructive process is not pus. It is broken down material or detritus due to the action of the tubercle bacillus, and being without toxins of the pyogenic organisms it does give rise to the constitutional symptoms.

Another point is that the bone infection always interferes with function and most profoundly so when pus is present. In the spine cases, there is liability to bend or stoop as mentioned by Dr. Wilson. With sacroiliac disease there is always a limp. With hip joint disease there is entire ablation of motion at the hip joint, and these disturbances of the motor functions are of the greatest diagnostic importance, and are easily recognized by an examination of the patient. The pain from bone lesions is mostly reflected pain. At times when the sacro-iliac symphysis is the seat of tubercular infection you have tenderness on pressure over the thickened area, but in the

LISTERINE

The standard antiseptic for both internal and external use.

Non-Toxic, Non-Irritant, Non-Escharotic—Absolutely Safe, Agreeable and Convenient.

LISTERINE is taken as the standard of antiseptic preparations.

The imitators all say, "It is something like LISTERINE."

BECAUSE of its intrinsic antiseptic value and unvariable uniformity, LISTERINE may be relied upon to make and maintain surgically clean—aseptic—all living tissues.

IT IS AN EXCELLENT and very effective means of conveying to the innermost recesses and folds of the mucous membranes, that mild and efficient mineral antiseptic, boracic acid, which it holds in perfect solution; and whilst there is no possibility of poisonous effect through the absorption of LISTERINE, its power to neutralize the products of putrefaction (thus preventing septic absorption) has been most satisfactorily determined.

A special pamphlet on catarrhal disorders may be had on application.

For diseases of the uric acid diathesis:

LAMBERT'S LITHIATED HYDRANGEA

A remedy of acknowledged value in the treatment of all diseases of the urinary system and of especial utility in the train of evil effects arising from a uric acid diathesis. A pamphlet of "Clippings" of editorials on this subject may be had by addressing:

LAMBERT PHARMACAL COMPANY, - - ST. LOUIS.

Be assured of getting Listerine by purchasing an original package.

great majority of cases the pain is reflected along the sciatic nerve and strongly simulates sciatica. These cases are sometimes treated as cases of rheumatism, but careful examination will exclude rheumatic infection because no other parts of the body are so affected, while in rheumatism you would in all probability find other parts involved and less interference with the function of the muscles related to the deceased parts.

Another point is that the tuberculous process is more likely to be lighted up after pregnancy has ceased. During the course of pregnancy, singularly enough, the tubercular process is in abeyance, the patient's resistance being apparently much greater at that period. After pregnancy has ceased, however, there is an accentuation of all the symptoms, and the case generally goes on to an unfavorable ending, unless prompt remedial measures are instituted. I wish to reiterate what Dr. Wilson has said as to the ultimate curability of these cases, that if they are taken in time and proper measures instituted, we find they almost invariably go on to successful recovery, but if unrecognized, the danger is oftimes irreparable.

Dr. Charles E. Nassau. The very title of Dr. Deaver's paper eliminates any discussion in regard to the question of drainage in operations for pus in the pelvis, for as Dr. Ross has said, in a case of pus in the pelvis from appendicitis one naturally must drain. In regard to the variety of drainage in a case of appendicitis, I think that the more one packs rather than drains, the better is the result. Dr. Deaver's practice of packing off the bowels from the seat of operation to prevent the contamination of the clean peritoneum and then replacing that gauze piece by piece with the drainage material is of great assistance in preventing spread of infection. It is my own belief that, other things being equal, if the bowels are kept away from under the edges of the abdominal wound there is less danger of pulling out a piece of bowel when the gauze is removed. This brings up the question when to remove drainage in these pus cases. Gauze is often taken out too soon. I do not think that anything is gained by removiag even a small strip of gauze within three or four days after operation, although I know that in the hands of some gentlemen it has become the practice to do that, particularly in gynecological and pelvic work. I am in the unpleasant position at present of having a patient in whom the gauze was left for seven days before removed, and which I think was taken out too soon. Anybody doing pelvic work comes in contact with the question whether to remove the appendix in an ordinary pelvic operation when the appendix is not involved. I think if the patient is in a perfectly good condition at the end of every pelvic operation the appendix should be taken out if it can be reached without any trouble. This opinion is the result of personal experience.

In connection with pus in the pelvis from bone lesions I think nothing has been said in regard to the methods of drainage of psoas abscesses. If these abscesses are opened as any other abscesses should be opened from end to end, disregarding everything that is in the way, starting at the front and going around the crest of the ileum direct to the back, healing may be expected. I have had several cases under may care in which a perfectly nice recovery has been made by opening the abscess from one end to the other. It takes about three months for these cases to heal, but when they do so they stay closed as a rule. I have seen this operation done on both sides of the same patient. It makes a very large wound, and one which a timid man would not make.

In Dr. Montgomery's really very instructive paper the only thing which he mentions which I would not do, and I think attention has been called to that point very well in a recent paper by Dr. Noble, is the washing out of the abscess, which is something every body else has advised who has spoken this evening. If you wash out a freshly opened pelvic abscess, or even a localized pus collection in the broad ligament, and if the general peritoneal cavity is slightly opened by mistake the pus would be likely to spread over areas otherwise healthy. When an abscess is once opened you do not need to wash it but when drainage exists such as you get by gravity in the pelvis. With pus in the pelvis in which the abscesses are localized in the layers of the broad ligament, that is, extra-peritoneally, they can often be opened with greater safety to the patient by making an incision closely along Poupart's ligament or a little lower and pushing the peritoneum upward. This is a particularly nice way to do in those cases in which the variety of infection is obscure. As Dr. Norris has said, the case rests upon whether or not we can make the diagnosis. I very much doubt whether I personally could make the diagnosis in all cases.

The question of drainage brought up by Dr. Baldy's paper, is one on which I feel very strongly. I think perhaps fully ten if not fifteen per cent. of cases drained with gauze or glass tube develop hernia. If we do have to drain we can close the abdominal wall and drain by the vagina, which I think is the very nicest way. Even that

In CARDIAC and GENERAL MUSCULAR RELAXATION, due to Functional Cardiac and Circulatory Disturbances.

CACTINA PILLETS

Has Many Advantages Over Other Heart Stimulants.

IT HAS NO CUMULATIVE ACTION, AND IS ABSOLUTELY SAFE AND RELIABLE.

Each pillet represents one one-hundredth of a grain CACTINA, the active proximate principle of CEREUS GRANDIFLORA.

DOSE: One to four pillets three times a day.

Samples mailed to physicians only.

THE CHIEF CHARACTERISTICS OF THE PHYSIOLOGICAL ACTION OF

SENG

Is to promote Normal Digestion by encouraging the flow of Digestive Fluids. It is the Modern and Most Successful Treatment for

INDIGESTION.

A PALATABLE PREPARATION OF PANAX SCHINSENG IN AN AROMATIC ESSENCE.

DOSE: One to two teaspoonfuls three times a day.

A full size bottle, for trial, to physicians who will pay express charges.

SULTAN DRUG COMPANY, St. Louis, Mo., U. S. A.

Samples and Literature supplied by

PHARMACEUTICAL PRODUCTS
BAYER
BAYER
68 Stone St. New York.
FARBEN FABRIKEN of ELBERFELD CO.

AGURIN
The Non-Irritating Diuretic.

EPICARIN
The Non-Toxic Dermal Parasiticide.

SALOQUININE
The Tasteless and Improved Quinine.

HEDONAL
The Promoter of Natural Sleep.

FERRO-SOMATOSE
The Ferruginous Nutrient and Tonic.

PROTARGOL
Antigonorrheal, Antiseptic

ASPIRIN
The Best Salicylate.

does not always do away with the question of reopening. I had a patient in the Spring who had a very bad pyosalpinx, upon whom I did a hysterectomy. An opening was made through the top of the vagina and gauze packed in until the hemorrhage is stopped. I then sewed the peritoneum over top of the gauze. The cavity healed after the gauze was taken out and about eight weeks later another abscess developed. This is a complication which would not be influenced by drainage from above. If we can get rid of drainage through the abdominal wall by taking better care not to leave large stumps and infected uteri I think we will attain to something nearer perfection than we have to-day.

Dr. Charles P. Noble: Like Dr. Norris, I was struck with the different spirit of discussion on this subject from that of some years ago. I was also very much pleased to find that there was so much that one could heartily agree with in all of the papers, and that what one did not agree with were largely matters of detail. A few years ago it would not have been possible to have had a series of papers of this kind without having men in active work strongly disagree on many points. This fact indicates that the whole subject is on a sound basis of fact.

The point mentioned by Dr. Deaver of the differential diagnosis of peritonitis with fibroids and appendicitis reminded me of two cases, one of which is now in bed. The patient who was known to have a fibroid tumor was suddenly seized with violent pain in the abdomen in the appendix region with peritonitis and tension in the rectus muscle on that side. Operation showed a twisted pedicle in one nodule of the fibroid mass. I have seen the same accident twice and in both cases the condition had been suggestive of appendicitis.

The point concerning the frequency with which appendicitis causes salpingitis or is accompanied by it, in my experience is quite in accord with Dr. Deaver's, and undoubtedly this is the experience of us all. In dealing with pelvic abscesses due to appendicitis, I think that when we have these large pelvic abscesses from appendicitis, as a general rule, it is better to drain, and not to attempt radical operation, because under these circumstances the patient is almost invariably exceedingly ill, is prostrated and not a fit subject for radical operation. I have had a number of these cases in which vaginal drainage carried the patient over the immediate attack and in which a cure was effected at a subsequent operation. I have had several cases also in which pelvic abscesses formed secondarily to operation for appendicitis with abscess, in which the secondary abscess itself was drained per vaginam. In two cases it was quite apparent at the initial operation that there was considerable risk of this and the pelvis was drained with gauze at the time; yet secondary abscess followed. One was in the case of an adult; the other in a child of twelve.

The points raised by Dr. Wilson are very interesting to me, but not from the standpoint of experience. Bearing out his statement that these cases are rare in adult women, I have never seen them. The fact that one could have had a large experience in gynecology and never have diagnosed an abscess from bone disease indicates how rare is the condition. I have only seen two cases in which the suspicion might have come up, because the pelvic abscesses pointed in the loin just above the brim of the pelvis. The abscesses, however, soon healed with good drainage. I have had one case sent to me as psoas abscess. I did not believe it was a psoas abscess, but the patient had such marked symptoms that I cut down and exposed the psoas muscle and found it to be perfectly healthy. Dr. Wilson saw the case with me. The operation cured her hysteria. It is interesting to find that Dr. Montgomery who some years ago was very ardent as a vaginal operator has come to occupy the position much in accord with that of all his colleagues. It is my own opinion that the vaginal method should be reserved for special conditions and that the general method of attacking pelvic inflammatory conditions is from above. I am not in accord with the point made by Dr. Montgomery that when an abscess is incised through the vagina, it should be irrigated and that gauze should be used. I think as a rule these cases do very much better without irrigation at the time of operation and whenever possible, without irrigation at all, and without gauze packing. If we have a large pelvic abscess and it is incised, (not punctured) if the vaginal vault is widely opened, if necessary three inches, and there is free dependent drainage, the case does perfectly well without any form of glass, rubber tube or gauze packing. The only cases in my judgment in which gauze is an advantage is in the presence of a small sac with very thick wall in which you have to keep open the incision for a long time. This is the type of case which is least adapted to drainage.

I was much interested to hear Dr. Baldy's paper on the question of drainage in the routine abdominal operation for pelvic suppuration. I was also impressed with the fact that all of the speakers although as familiar with the fact as I, have forgotten to mention that one of the two men in the

PONCA COMPOUND.

UTERINE - ALTERATIVE

RELIEVES CONGESTIONS, ENCOURAGES PERISTALSIS.
REMOVES SPASMODIC CONDITIONS,
REGULATES THE VASCULAR SUPPLY.

FOR ALL FUNCTIONAL UTERINE AND OVARIAN DISORDERS

THE ORIGINAL PACKAGE OF PONCA COMPOUND CONTAINS 100 5 GR. TABLETS MAILED TO PHYSICIANS ON RECEIPT OF $1.00.

SAMPLES AND LITERATURE ON APPLICATION MELLIER DRUG COMPANY, ST. LOUIS.

SYRUPUS ROBORANS.

SYRUP HYPOPHOSPHITES COMP. WITH QUININE, STRYCHNINE AND MANGANESE.

1-128 grain Strychnine to teaspoonful.

The pharmaceutical skill displayed in making this favorite compound more stable and agreeable, deserves the approbation of the profession.

Syrupus Roborans as a Tonic during Convalescence has no Equal.

As a nerve stimulant and restorative in waisting and debilitating diseases, as a constructive agent in Insomnia, Pneumonia, Bronchial Asthma, Marasmus, Strumous Diseases and General Debility, this compound has no superior. Owing to the solubility of the salts, additions can be made of Fowler's solution, Syrup Iod. Iron, Iod Potass, etc., giving the advantages of these remedies without interfering with the stability of the preparation. SYRUPUS ROBORANS is in perfect solution, and will keep in any climate.

DR. T. H. STUCKY writes: "In a case of Tertiary Syphilis, very anemic, the Iodides were revolting to the stomach, being vomited when taken. Syrupus Roborans given three weeks with improvement, when the Iodides Potassium was retained with good results."

DR. W. O. ROBERTS says: "In cases convalescing from 'La Grippe Syrupus Roboran has no equal.

PETER'S PEPTIC ESSENCE COMP.

A POWERFUL DIGESTIVE FLUID IN PALATABLE FORM.

Please note that Essence and Elixir Pepsin contain only Pepsin, while in Peter's Peptic Essence we have all the digestive ferments. These are preserved in solutions with C. P. Glycerine in a manner retaining their full therapeutic value, which is exerted in and beyond the stomach.

It is a stomachic Tonic, and relieves Indigestion. Flatulency, and has the remarkable property of arresting vomiting during pregnancy. It is a remedy of great value in Gastralgia, Cholera Infantum and Intestinal derangements, especially those of an inflammatory character. For nursing mothers and teething children it has no superior. Besides mere digestive properties, Pepsin and Pancreatine have powerful soothing and sedative effects, and are therefore indicated in all gastric and intestinal derangements, and especially in inflammatory conditions. It is perfectly miscible with any appropriate medium. In certain cases the addition of Tr. Nux Vomica gives much satisfaction. Please write for Peter's Peptic Essence and you will not be disappointed. These preparations are held strictly in the hands of the medical profession, never having been advertised as popular remedies, nor put up with wrappers and circulars expatiating on the use of the Hypophosphites or Digestive, thus educating the public in the use of these valuable compounds.

Samples Sent upon Application. Express Charges at your Expense.

For Sale by ARTHUR PETER & CO.

11 Wholesale Druggists. LOUISVILLE, KENTUCKY.

world who first called our attention to the fact that drainage was unnecessary and forced us to accept this truth; lives in Philadelphia, and is present with us this evening. I remember very well, when my experience was small in abdominal surgery, listening with horror to Dr. Baer's temerity in leaving out drainage in cases in which he operated, and which in some mysterious way, as it seemed to me, persisted in getting well. So for as my own work is concerned, drainage is practically never used, that is, in routine, average operations. Of course, in a large abdominal abscess in which abdominal section has been done it is necessary to pack. I think the point raised by Dr. Nassau about packing off the peritoneal cavity is applicable here. I look upon the gauze pack not so much as drainage as a means of shutting off the peritoneal cavity from a septic focus. In the class of cases alluded to by Dr. Norris in which vaginal drainage is employed, as a rule I do not drain at all. I am sure that with care and increase in skill it is seldom necessary to drain. It has been my practice when a patient died in a hospital to have an autopsy made, and there has not been reported a case in which there was reason to believe that the patient died from lack of drainage. I was interested to hear Dr. Norris' remarks of the advantages of hysterectomy in this class of cases, because I remember well some years ago having advocated hysterectomy for the very reasons which he alluded to. By doing hysterectomy in this group of inflammatory pus cases and taking the healthy peritoneum from the bladder to cover over the wounded peritoneum we can avoid drainage in almost every case.

It is also interesting to hear mention of true phlegmon or suppuration in the pelvic connective tissue, because I remember that some years ago when I reported such cases, they were not accepted as facts, by the more enthusiastic of Tait's disciples. It is now recognized by all of us that we do have abscesses in the pelvic connective tissue. They are rare, but especially in puerperal cases we do have them. The most satisfactory method of treatment is vaginal incision. We can cure about all of them with their appendages intact.

I do not agree with Dr. Nassau regarding the point of incision for abscess in the connective tissue of the broad ligament. It is almost never better to incise above Poupart's ligament, but always better to incise through the vagina, because incision above Poupart's ligament is almost always followed by hernia. The only exception is when the pus points in the groin.

It is a source of great satisfaction to those of us who struggled through the early stages of the methods which have been developed, to see how greatly our methods have been improved in dealing with pelvic suppuration and how nearly in accond all of us now are.

Dr. George Erety Shoemaker: We are, as has been said, very largely in accord on most points. It is possible in reaching a conclusion as to the method in dealing with pus in the pelvis to be guided by a certain extent by the cause of the pus. Considering the organisms we have to deal with, the colon bacillus, the tubercle bacillus, the streptococcus as found in puerperal cases; we have the gonococcus or mixed infection. These are the principal factors and we would all agree probably that if the colon bacillus in active stage is found as in acute appendicitis we should use drainage, and we would probably all agree that in dealing with the gonococcus we do not as a general thing require drainage; in dealing with the tubercle bacillus, if we can remove the infected tissue we do not require drainage. In dealing with the streptococcus as in puerperal cases we do require drainage, preferably through the vagina, while ordinary mixed infections may be best treated without it. There is another way of grouping these cases according to the tissue involved. As a general thing we drain as a measure of safety in abscess involving the integrity of the bowel wall and the appendix. When the pelvic connective tissue is chiefly involved as in some puerperal cases we can as a general thing drain from below with permanent success. Gonorrhœal pus tubes call for abdominal section without drainage. Vaginal incision alone is unsatisfactery in these cases, because the sac wall is well organized and has a secreting surface. The same rule applies to vaginal drainage of cystic tumors. Vaginal drainage alone will be apt to cure any case where the sac wall is made up entirely of connective tissue with inflammatory drainages.

Dr. B. F. Baer: I am much obliged to you, Mr. President, and to the Fellows for the kind greeting. I did not come to the meeting with the intention of entering into the discussion of this interesting subject, but rather to observe and to learn. With one or two exceptions, I am in accord with what has been said here this evening, but I will merely refer to one. I am sorry that I heard only the last few words of the paper by my friend Dr. Deaver, but from what I did hear I learn that he still employs the glass drainage tube and gauze packing. I was surprised at this, for I had hoped that he had given it up since others have found it not only entirely unnecessary, but positively harmful. It is accountable for some deaths and for nearly all of the

Surgical Phlebotomy

Shocks the patient. Depletes the lung by reduction of vital tissue. Every red blood-corpuscle is an oxygen carrier. Pneumonia patients bear loss of blood badly. Bleeding necessitates administration of free oxygen.

Physiological Phlebotomy is Rational Therapeutics

Bleeds But Saves The Blood

Antiphlogistine is the only known and approved medium for Physiological Phlebotomy Relieves the congested lung through the physical process of osmosis. Aids resolution by abstraction of Liquor Sanguinis. Maintains circulation by saving vital tissue.

Antiphlogistine

Is immediate, effective and permanent in its action. Pleuritic adhesions do not occur and Cardiac complications are prevented in those cases where

Antiphlogistine

is applied in the initial stage of Pneumonia, Pleurisy, or Pulmonary Congestion.

Denver Chemical Mfg. Co.

NEW YORK.

London, Eng.

bowel fistulae. Further, the practice of "walling off" the abscess during the operation with gauze, also seems to me to be overdone. I have seldom found it necessary, even in the worst cases of septic appendicitis. I believe there is more danger of infection by the "walling off" with gaze than by quickly separating adhesions, liberating pus, removing the diseased organ and washing away any septic material by thorough irrigation with saline water. Whenever I have seen it done, it seemed to me that more injury was done and that there was more danger of spreading the infection, because it is a time consuming and difficult manipulation; coils of intestine keep coming up and necessitate pushing to get them back. There is necessity for drainage in a few cases, I admit, but the percentage is very small; then the rubber tube is better than glass, because there is less danger of creating a fistulae in degenerated bowel, and it admits of more freedom in changing the position of the patient. I have not used a glass drain in several years.

Dr. Deaver closed: In concluding the discussion I have very little to say. My friend, Dr. Baer, is so lamb-like to-night that I would not like to attack him. Formerly in some cases in which the pelvis was full of pus the surgeon would open through the rectum using the old trocar and canule and these cases would recover. The principle is the same as that in operation today per vagina. The question of drainage in other pelvic operations depends largely upon the individual. Dr. Norris has referred to Landau's operations. In those I have seen him do, everything was done above the pelvis. I did not see him do a single vaginal operation. I do between 700 and one thousand abdominal sections each year and have occasion to use drainage in a certain class of cases. Dr. Shoemaker has struck the keynote in speaking of the character of infection. I believe a certain class of cases require drainage. We hear of cases operated without drainage in which the abdomens are full of pus and that the patients get well. All I can say is that I do not practice those methods, nor would I have them practiced on my own person. In the case of a woman with miscarriage I curette and when not able to discover anything, I have incised the vagina and put in a piece of gauze which has been followed by a smooth recovery. The temperature and pulse rate have come down and all evidence of infection has disappeared. In extrauterine pregnancies where there has been a blood clot and suppuration and in which all the pus generating surface cannot be removed drainage is indicated. With Dr. Baer, I use drainage less than formerly, but a different class of cases go to private sanitariums than to a general hospital, I believe we all have the same ideas, and furthermore, that if we all had the same class of cases we would do nearly the same thing.

The question of vaginal operation has been well discussed by Dr. Montgomery, and as Dr. Noble has said, it is interesting to see that he is not so ardent an advocate of this operation now as formerly. Certain operations can be well done by the vaginal route, but in my experience the larger number of pelvic cases are better done by the abdominal route. In regard to the class of cases mentioned by Dr. Nassau in which the opening is made above Poupart's ligament. I have seen cases open spontaneously about Poupart's ligament, and I know there is a percentage of cases in which the mass is very high and cannot be reached by the vagina.

Rheumatism.

A. M. Carpenter, M. D., Vice-President and Professor General Medicine. Barnes Medical College, St. Louis, Mo.

Rheumatism is not merely a localized disease characterized by red, swollen and painful joints, which are an agony to the sufferer, but it is a general condition of the system of so marked a character as to be denominated by pathologists a true diathesis.

The tendency of rheumatism to leave suddenly one articulation and to attack another, renders it a constant source of dread, while its liability to attack the valves of the heart and terminate in an incurable organic heart lesion, emphasizes the importance of correcting the condition as early as possible.

While various methods of treatment are advocated, the opinion of Dr. W. Ewart, of London, is that most generally accepted and followed.

Dr. Ewart states that since rheumatism is invariably accompanied by loss of appetite and embarrassed metabolism, it is naturally the result of accumulated secretions and imperfect excretion, hence it is best treated by freeing the bodily outlets and carefully measuring the supplies.

He questions whether acute rheumatism could long exist with a diarrhœa and while recognizing the necessity of the salicylate treatment, he advises that such be combined with mild cholagogues, diaphoretics and diuretics.

Furthermore there are very many and grave drawbacks to the use of either salicylic acid or any of its salts alone in a treatment which may last, as in rheumatism, gout and neuralgia, for a long period of time.

RECENT PUBLICATIONS.

Physical Diagnosis in Obstetrics

A Guide in Ante-Partum, Partum and Post-Partum Examinations. By EDWARD A. AYERS, M.D., Professor of Obstetrics in the New York Polyclinic Medical School and Hospital, etc., etc. 8vo. 304 pages. Illustrated. $2.00, net.

Childbed Nursing

With Notes on Infant Feeding. By CHARLES JEWETT, M.D., Professor of Obstetrics and Diseases of Women in the Long Island College Hospital, Brooklyn, N. Y. **Fifth Edition.** 12mo. 96 pages. Cloth, 80 cents net.

Syphilis—A Symposium

Contributions by Seventeen Distinguished Authorities. L. DUNCAN BULKLEY, WM. S. GOTTHEIL and others.
12mo. 125 pages. Cloth, $1.00 net.

International Medical Annual, 1902

A Year-Book of Treatment, combining the features of an Annual Retrospect with those of a Medical Encyclopedia.
8vo. 738 pages. Illustrated. Cloth, $3.00 net.
1903 Issue in Press.

Obesity—The Indications for Reduction Cures

By PROF. DR. CARL VON NOORDEN, Translated under direction of DR. BOAEDMAN REED.
12mo. 60 pages. 50 cents net. *In Press.*

Nephritis

By PROF. DR. CARL VON NOORDEN, Translated under direction of DR. BROAEMAN REED.
12mo. 112 pages. $1.00 net. *In Press.*

Legal Medicine—A System of

By ALLAN MCLANE HAMILTON, M.D,, and thirty others. SECOND EDITION, revised and enlarged. 2 vols. 700 pages each. Cloth, $10.00; Sheep, $12.00.

Sexual Debility in Man

By FREDERIC R. STURGIS, M.D., Formerly Clinical Professor of Venereal Diseases, Medical Department, University of the City of New York, etc. 8vo. 436 pages. Cloth, $3.00 net.

Books delivered free to any adress in Universal Postal Union upon receipt of advertised price.
Our complete catalogue sent upon request.

E. B. TREAT & CO., 241-243 W. 23d St., New York.

Surgical Instruments Free

BY THE ADOPTION OF

RAY'S DIRECT ORDER PLAN.

The best and newest Instruments of the most reliable makes. We do not make Instruments, and we do not sell them.

We are Exclusively a Pharmaceutical House and our Prices are Lower than those of other Reliable Manufacturers.

Only the best and purest ingredients, scientific knowledge, and skill enter into our products.

Our discounts are large because we operate on an extensive and economical scale.

RAY'S DIRECT ORDER PLAN means:—We secure all orders through correspondence, employing no salesmen or detail men, thus saving 20 per cent. of the total cost of getting business. Therefore, over and above all regular discounts we credit our customers with 20 per cent. of the net amount of every purchase, and use that money to buy the instrument you want.

Your instrument credit is redeemable on each order, or can accumulate, just as you choose.

Send us a trial order and convince yourself of the many advantages of adopting our plan.

Catalogue with Discounts mailed on Request.

THE RAY CHEMICAL CO.,

Manufacturing Pharmacists. **Detroit, Mich.**

AFTER TYPHOID

COLDEN'S LIQUID BEEF TONIC supplies nutriment in a form eagerly accepted by the depressed vital organs. Blood is enriched, tissue formed, nerves strengthened, the whole system invigorated. It helps the patient out of debility into healthful activity. Be sure to specify definitely to insure the patient's getting the genuine Colden's Liquid Beef Tonic. Sold by druggists generally.

Samples free to physicians.

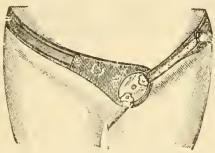
THE CHARLES N. CRITTENTON CO.

SOLE AGENTS FOR THE UNITED STATES

115-117 FULTON STREET, NEW YORK

Flavell's Elastic Trusses,

Can be Worn Day and Night.



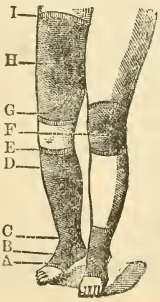
SINGLE TRUSS	Adults
A. Plain	$1.50
B. Fine	2.00
C. Silk	2.50
DOUBLE TRUSS	**Adults**
A. Plain	$2.50
B. Fine	3.00
C. Silk	4.00

PNEUMATIC PADS

Give circumference of abdomen on line of Rupture. State if for Right or left.

ELASTIC STOCKINGS.

Give exact Circumference and Length in all Cases.



NET PRICE TO PHYSICIANS.

	Stout Silk each	Fine Silk each	Thread each
A to E	$2.50	$2.00	$1.50
A to G	4.25	3.50	2.50
A to I	6.00	5.00	4.50
C to E	1.50	1 25	1.00
E to G	1.50	1.25	1.00
A to C	1.50	1.25	1.00

Goods sent by Mail upon receipt of price.

Safe delivery guaranteed.

Send your Orders Direct to

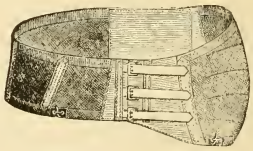
G. W. FLAVELL & BRO.,

1005 Spring Garden Street, Philadelphia, Pa.

We Solicit the Physician's Patronage Direct.

ABDOMINAL SUPPORTER.

Give exact circumference of abdomen at K. L. M.

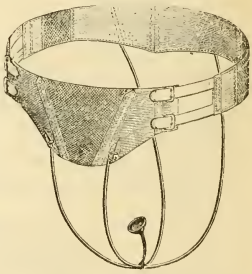


Silk Elastic.....$3.25
Thread Elastic.....2.50

Flavell's Uterine Supporter.

Give measure 2 inches below Naval.

State if for Prolapsus, Retroversion, or Anteversion.



NET PRICE TO PHYSICIANS

$2.50

TABLE OF CONTENTS FOR JANUARY, 1903.

Original Communications.

On the Diagnosis of Ectopic Gestation, by H. A. Royster, M.D., Raleigh, N.C. 1

Report of My Own Case of Yellow Fever, in Progreso, Yucatan, by Edward T. Hargrave, M. D., Norfolk, Va. 4

Report of Some Surgical Cases Treated at the James Walker Memorial Hospital, Wilmington, N. C., by Joseph Akerman, M. D., Wilmington, N. C. 7

Septicemia and the Curette, by H. Plympton, M. D., Brooklyn, N. Y. 8

Gonorrhœa in the Male, by F. R. Millard, M. D., San Diego, Cal. 9

The Value of Palpation in Certain Abdominal Diseases, by Dr. F. T. Meriwether, Asheville, N. C. 11

Mastoiditis, by Clarence Porter Jones, M. D., of Newport News, Va. 14

Monograph Read Before the West Chicago Medical Society on a New Method of Delivery by the Obstetrical Tractor, by E. D. St.-Cyr, M. D., Chicago 15

Editorials.

Electrolysis 27

Is There Sufficient Restraint from Vice Thrown Around Students at Our Medical Institutions? 28

Substitution for Vaccination a Failure 28

A Movement Toward Reciprocity in Licensing 29

Serum Treatment of Rheumatism 29

The Medical Treatment of Gall-Stones 30

The Rontgen Ray in Gynecology 30

The Plague in San Francisco 31

Individual Consumption of Alcohol 31

Book Notices.

The Physiciar's Pocket Book, by J. J. Taylor, M. D 31

Transactions of the American Dermatological Association. 1901 31

The Reference Hand-Book of the Medical Sciences, by various writers. Edited by Albert H. Buck, M. D., New York City 32

The Practical Medicine Series of Year Books, issued monthly under the general editorial charge of Gustavus P. Head, M. D 32

Iuternational Clinics, by Henry W. Cattell, M. D. 32

Obstetrics, by Henry J. Garrigues, M. D., New York 33

The Practice of Surgery, by Henry Wharton, M. D. 33

Transactions of the Royal Acedemy of Medicine in Ireland. Vol xx, 1902 34

Physiology, Fear and Faith, by Lyman Beecher Sperry, M. D. 34

Lessons and Laboratory Exercises in Bacteriology, Allen J. Smith, M. D., Galveston, Texas 34

Schalek on Dermatology, by Alfred Schalek, M. D., Chicago 34

Reginal Minor Surgery, by George Gray Van Schaick, M. D., New York 34

A Story of a Living Temple, by Frederick M. Rossiter, M. D., and Mary Henry Rossiter, A. M. 35

The A B C of Photo-Micrography, by W. H. Walmsley 35

Transactions of the Association of American Physicians, 1902 35

Obstetrical Nursing for Nurses and Students, by Henry Enos Tuley, M.D., Louisville, Ky 35

The Practical Series of Year Books. Vol. X, by W. L. Baum, M. D., and Hugh T. Patrick, M. D., Chicogo 35

Transactions of the New Hampshire Medical Society, 1902 35

Literary Notices.

Scrsbner's Magazine for December, 1902 35

The December Lippincott's Magazine 36

Dr. George M. Gould'i Biographic Clinics, (P. Blakiston's Sons & Co., Philadelphia.) 37

The Review of Reviews for December 37

Abstracts.

Buttermilk as Infant Food. 43

Causation and Treatment of Thrombosis Occurring in Connection with Typhoid Fever 39

Dyspepsia and Its Treatment by Antiseptics 43

Fractures of the Lower End of the Radius 43

Hypertrophic Tuberculosis of the Intestine 26

Hair Balls and Other Concretions in the Stomach 44

Intraperitoneal Hemorrhage Incident to Ectopic Gestation 37

Instructions to Those Having Gonorrhœa 40

Lung Complications in Appendicitis 42

Nephropexy by a New Method 25

New Method of Treating the Persistent Vomiting of Pregnancy 40

On Colon Catarrh 40

Placenta Previa 26

Perforation of the Bowel in Typhoid Fever 38

Pyelitis in Infants—Symptoms and Treatment 42

Some of the Orthopedic Conditions of the New-Born Demanding Early Surgical Treatment 41

The Treatment of Leucorrhea 38

The Action of the X-Ray and Its Uses in Therapeutics 41

Treatment of Insomnia 45

For Prostatic Congestion.

Dr. Stordeur recommends the following suppository for the relief of prostatic congestion from any cause:

℞.—Potassium iodid, 5 grs.
Ichthyol, 3 grs.
Morphine hydrochl., ⅙ gr.
Ext. stramonium, ⅙ gr.
Oil theobroma, q. s. for 1 sup.

Sig.—One or two daily.—*Nerck's Archives.*

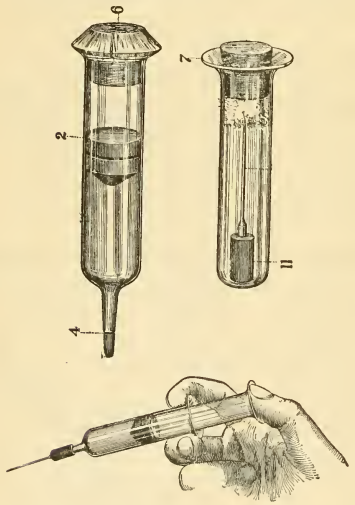
Notice-- SANDER & SON EUCALYPTOL is invaluable in inflammation of the mucous membranes, and in all septic and infectious diseases. Apply to Dr. SANDER, 88 Lincoln Avenue Chicago, Ill. for sample and literature of Sander's Eucalyptols Meyer Bro.'s Drug Company, St. Louis, Mo., Sole Agents.

A New Device for the Furnishing of Antitoxins and Curative Sera.

An improvement in the package in which Antitoxin and the various curative sera are furnished, has been introduced by the H. K. Mulford Company, Philadelphia, by which the Antitoxin is furnished in the barrel of an aseptic glass syringe, hermetically sealed.

The advantage of this container is immediately apparent to the profession, since it not only presents each dose of Antitoxin in a perfectly aseptic syringe, but prevents the possibility of infection in administering Antitoxin through an imperfectly sterilized syringe, and, furthermore, it obviates any uncertainty in the working of the ordinary piston syringes.

The cut describes the style of the package containing the serum. The barrel of the syringe contains the Antitoxin. In using, the physician breaks the sealed tube at point (4), by placing the thumb and the first finger of the right hand immediately over the etched line and pressing the finger and thumb slightly together, a little more pressure being exerted towards the end than towards the barrel of the syringe. The needle is then taken from the sterile glass plunger, and the rubber tubing (11) applied with a slight rotary movement over the fractured end of the syringe. The cap and paraffined cork (6) is then removed from the glass barrel of the syringe and the plunger used as indicated in the illustration.



The plug (2) not only serves to retain the serum in the barrel of syringe, but also serves as a washer, and the plunger (7) is pressed against it to expel the Antitoxin.

This package has an especial advantage, in that the serum never comes in even momentary contact with the outside air, and the needle, plunger and syringe are all thoroughly sterilized, ensuring an aseptic injection. With this device it is not possible to inject air into the patient, and contamination of the serum is impossible.

Well Worthy of Your Attention.

At this season of the year the interest of the medical profession in the treatment of inflammations of the respiratory organs is evidenced by the large amount of space devoted to this subject by the medical journals. It would seem that such an exceedingly common-place subject as the ordinary cold, worn almost thread-bare by centuries of discussion, would offer little attraction to the modern physician; yet it is a theme that receives constantly the attention of many of the leaders in medicine. The reason for this can be found in two well-recognized facts. First, that an improperly treated acute inflammation of the respiratory organs is often the percursor of grave pathologic conditions that influence other parts of the body and are difficult if not impossible to permanently overcome; an instance of this is the condition of emphysema that often results from a chronic cough, which in turn leads to dilatation of the heart with its concomitant changes in the heart muscles. Second, the treatment of acute inflammations of the respiratory tract by the ordinarily employed methods is usually unsatisfactory. That expectorants and cough sedatives are of but little utility is the consensus of opinion of the best men; that they may in a certain limited class of cases be of some value is recognized, but it is also conceded that in the great majority of cases their effects are comparable to that of water on a duck's back. The same may be said of the much employed cough sedatives of which opium, morphine or one of its derivatives are the most conspicuous examples. It is true that this latter group of agents have a tendency to reduce the frequency and severity of cough, but the principle effects of opium and its derivatives consist of deleterious influence on other physiologic functions; true is this that the most discriminating of clinicians reserve opium for scattered isolated cases. If a physician would call to the mind the pathologic conditions present in respiratory inflammations it would give a clue as to the best method of treatment that would be consistent with the laws of nature. For instance, in *acute bronchitis*—by far the most common respiratory affec-

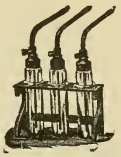
Surgical Chairs.

FEICK BROS. COMPANY.

HEADQUARTERS FOR

SURGICAL INSTRUMENTS and PHYSICIANS' SUPPLIES.

Quality of first importance always, but prices likewise low. A few specialties.



Davidson Atomizers.

Artificial Limbs, **Nose and Throat Instruments,**

Electric Batteries, **Orthopædic Apparatus,**

Invalid Supplies.

Elastic Hosiery.

Trusses.

Artificial Eyes.

Braces.

414 WOOD STREET, : : : : : : : : : PITTSBURG, PA.

The Baltimore Medical College.

Preliminary Fall Course begins September 1, 1902.

Regular Winter Course begins September 25. 1902.

Excellent Teaching Facilities; Modern College Buildings; Ideal Lecture Hall and Amphitheaters; Large and Completely Equipped Laboratories; Capacious Hospitals and Dispensary; Lying-in Department for Teaching Clinical Obstetrics; Large Clinics; Send for Catalogue, and address DAVID STREETT, M.D., Dean. 712 Park Ave., Baltimore, Md.

For Amenorrhœa and Dysmenorrhœa

The emmenagogue properties of this drug, proved by physiological experiments on animals, are due to its specific action, which stimulates uterine circulation and determines vascular congestion, excitement and a peculiar contractibility of the smooth muscular fibres of the uterus.

CHAPOTEAUT'S

APIOLINE

(Registered).

The true active principle of parsley, (differing from so-called Apiol) in four minim capsules.

Apioline is harmless, certain in results and easy of administration. It should be given in doses of 2 or 3 capsules daily, with meals, two to three days previous to the expected menstrual epoch

Apioline regulates and promotes an almost painless flow of the menses.

Sold in original bottles only.

RIGAUD & CHAPOTEAUT, Paris.

New York: E. FOUGERA & CO.

Santal-Midy

OL: SANTAL: FLAV: PUR: (MIDY)

The standard preparation of Sandalwood Oil, in 5 minim capsules. Superior to all commercial oils in the treatment of specific and non-specific Urethritis, Cystitis, Bronchitis, and wherever the properties of Sandal Oil are indicated in inflammatory conditions of the mucous membranes.

tion—the mucous membrane is congested, swollen, and because of disturbance of physiologic function, covered with the products of disordered secretion, i. e. mucous or the products of its decomposition or chemical change. These disordered products act just as foreign body in any other part of the body acts—it produces irritation which manifests itself as cough, and the usual well-known sensations. What more appropriate agent could be applied to this condition of congestion, irritation, hyperæsthesia, and abrogation of function than a remedy that is sedative, demulcent and lubricant? A priori, petroleum would seem to be the ideal agent, and Angier's Petroleum Emulsion the form to administer it in a pure, palatable and most efficacious form. Aside from the above mentioned theoretical reasons for the use of petroleum in acute respiratory inflammation, there exists the incontrovertible clinical fact that it has for many years yielded better and quicker results in these cases than any other remedy or combination of drugs known. It is, first of all, harmless and entirely free from detrimental influences upon any function or organ of the body. Expectorants, cough syrups, and sedatives have a predelection for irritating the gastric mucous membrane and thereby inducing nausea, oft-times vomiting and almost always disturbances of digestion. In contrast to this Petroleum has a positive sedative influence on the gastro-intestinal tract. If there were no other recommendations for the use of Petroleum in respiratory inflammations, the immediate effects of the remedy in affording relief from the bronchial distress, hacking cough and difficult expectoration would entitle it to universal use as a palliative. But it is more than this: there are very few cases of acute inflammation of the bronchi, larynx and pharynx, that will not be completely eradicated within a week or so after the administration of the remedy has been started. Patients always comment upon the comfortable feeling of the throat and chest after they begin to take Petroleum; this means simply that the rawness and soreness due to the congested irritable condition of the mucous membrane have been overcome by the well-attested sedative, demulcent and lubricant properties of the Petroleum.

Few, if any, acute cases will become chronic if Petroleum is employed, as soon as the first symptoms appear; but chronic cases form a large part of the physician's winter work and are usually tractable and distressiag. In chronic bronchitis of the various clinical forms and particularly in that class designated "Winter Cough" Petroleum has achieved an enviable reputation. Because of its well-mentioned local effects it is of specific value in overcoming the morbid secretory disturbances of the bronchial mucous membrane which constitutes the essential feature of these chronic cases. That it has this effect is proved by the diminuation in the frequency and severity of the cough, the alteration of the expectorated material from a thick viscid, tenacious mass to a fluid easily expelled, less copious, mucoid material and the freedom afforded the patient from the subjective symptoms of irritation in the thorax. In elderly people with chronic winter cough of yearly recurrence and of obstinate character, the use of strychnine in combination with Petroleum yields results far better than any other method of treatment. Probably not a small element of the success of Petroleum in chronic respiratory inflammations is due to the positive effects of the remedy as a nutritive; it will be recalled that many of these obstinate cases are associated with or even dependent upon constitutional conditions of malnutrition or general debility. As a nutritive, Petroleum is, authorities of the highest class have proved, far superior to Cod Liver Oil. This fact has been demonstrated beyond a question of doubt, and is accepted as one of the establishsd facts of therapeutics.

In view of what the many years experiences of carefully observant physicians have proved, it may be safely stated that the treatment of both acute and chronic bronchitis and other inflammations of the respiratory tract, will be uniformly satisfactory if Petroleum is administered as soon as the condition begins and continued until convalescence is firmly established.

Lord Macaulay Says: Every Clinician Becomes an Historian.

Lord Maculay briefly epitomized history as the "Record of Events." Be it so. The pleasant task of collection and verification of data falls upon the historian, who retelis in an interesting and enthusiastic manner the lives and acts of others.

In medical history as in secular the value of an epoch often rests upon the work of the individual, and the true portrayal of one incident in life lends color to the complete narrative. Acts not words illustrate the advance of progress in science and literature.

The desire of one person to know precisely why another individual preferred certain methods to old established forms necessitates history. The narrator of the events of daily life is the true historian and produces items of interest worthy of future history. The construction of records from this material constitutes the validity and

DOCTOR: If you have any cases of curvature of the spine —any form—antero, posterior, rotary or lateral —weak back, lax abdomonial wall, umbilical hernia, large abdomen, pain in back, neurasthenia due to irritation of lumbar and sacral nerves, in man, woman or infant, or woman suffering from lack of strength in abdomonial wall and backache, write us for full particulars of our Scientific Spinal Appliances made on special measurements to meet all conditions of Spinal troubles. No plaster, sole-leather or rawhide jackets needed. **We guarantee satisfaction.** We make other styles of Braces, Supports and Appliances. Our **Lift Up Abdomonial Supportor** is a wonderful help to persons troubled with weak back or backache, and always relieves that soreness and pain so often supposed to be kidney trouble. The average weight of one for an adult does not exceed seven ounces. This support is highly recommended **for weak and pregnant** women, in cases of lax conditions of the abdomonial muscles both before and after child birth.

Our **Model Form Appliance** is especially adapted to use in cases of weak back or stooping shoulders. It is a combined shoulder brace, spinal and abdomonial support.

Send for price list and illustrated catalogue containing endorsements from experts, physical instructors and patients who have our Appliances and supports in actual use. **We will see to it that both you and your patient are benefitted.**

PHILO BURT MFG. CO. 128 FIRST ST., JAMESTOWN. N. Y.

These trade-mark crisscross lines on every package.

GLUTEN FLOUR For Dyspepsia
SPECIAL DIABETIC FLOUR.
K. C. WHOLEWHEAT FLOUR.
Unlike all other goods Ask Grocers

Criss-Cross Cereals

These trade-mark crisscross lines on every package.

Gluten Grits AND **BARLEY CRYSTALS**
Perfect Breakfast and Dessert Health Cereals
PANSY FLOUR for Biscuit, Cake and Pastry.
Unlike all other goods. Ask Grocers.

Successfully indicated in Diet in cases of

Dyspepsia, Diabetes, Constipation

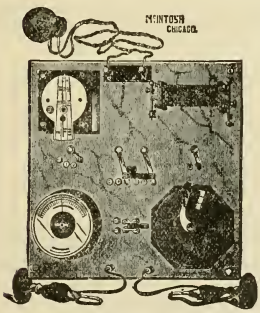
A Diet of SPECIAL DIABETIC FOOD should show a decrease of sugar after two weeks' use, increased strength, relief from thirst, and much better rest at night.

"All these preparations are the best that skill, experience and capital can make, and a very careful examination, both scientific and practical, has shown that every claim made by the manufacturers has been fully confirmed as true."—AMERICAN ANALYST, NEW YORK.

Special Offer to Physicians | On application we will send an order on Messrs W. C. Stronach & Sons, Raleigh, N. C., R. L. Christian & Co., Richmond, Va., or the nearest grocers who carry our goods for sample for trial | **Farwell & Rhines Watertown, N. Y.**

Galvanization, Faradization, Franklinization and X-Ray.

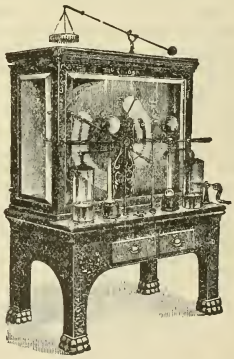
McINTOSH GOODS EXCEL BECAUSE OF MERIT.



NO. 6 Table or Wall Plate.

WE OFFER you the **No. 6 Table or Wall Plate,** embracing all the valuable accessories of a complete office battery, arranged for use with 110 volt direct current, or with battery of forty-three Ammonium Chloride Cells.

The Improved Construction 16 Plate Static Machine, complete with X-Ray attachments, is unequaled for administration of Franklinic and X-Ray Therapy, together with X-Ray Diagnosis.



McIntosh Static Machine.

Our goods are always reliable, combining simplicity of construction with durability and ease of operation.

SEND FOR ILLUSTRATED CATALOGUE AND PRICE LIST.

BATTERIES, ELECTRODES, STATIC MACHINES AND X-RAY COILS.

McINTOSH BATTERY AND OPTICAL CO., 39 W. Randolph St., CHICAGO.

worth of the article. What you do and tell to-day, if approved, your fellow man will perform to-morrow. Therefore the discovery of an aid to the burden of work-a-day life is more important than determining a new chemic element. One helps the masses; the other invites speculation from the few. History thus recites incident. Incident depicts facts, and facts destroy theories, as the following abstract convincingly states:

"We had here a more formidable state of "things to deal with: A woman in child-"bed, with every indication of Septicemia—"a double pneumonia, probably of septic "origin, with constant pain in hip and "lumbar region, with persistent vomiting "and diarrhœa, temp. 105 degrees. A "large tympanitic abdomen, small wiry "pulse, cyanosis with finger nails quite "purple. Dr. Tibbetts several times inform-"ed me that I could look for a fatal termi-"nation, so extreme was the case. . . . the "best thing to do was to curet, which was "done, and followed by hot bichloride "douches. . . . . no abatement in temper-"ature. Morphine had to be given hypo-"dermically to comfort patient, besides "strychnine, cactus, brandy, and digitalis "to support the heart's action. Just here "I must say that I administered anti-strep-"tococcic serum with very gratifying re-"sults. We also used injections of salt solu-"tion. I believe the benefit from these in-"jections was more lasting than from those "of serum. Antiphlogistine was applied "over hip, lumbar nerves and sciatic nerve. "This agent (Antiphlogistine) was our "mainstay in the treatment of both lungs "besides. The abdomen became as large "as before confinement, hard and resonant "on palpation. Antiphlogistine was there-"fore spread all over the abdomen. I know "of no preparation that has been brought "to the attention of the profession of late "years deserving of higher praise in all "inflammatory conditions, no matter in "what locality such may be seated. Poul-"tices have been abandoned by the writer "since the adoption of its use.

"Puerperal Septicemia Complicated by "Septic Double Pneumonia. Abscess of "Thigh.—Recovery.

"C. C. Partridge, M. D.,
"in American Surgery and Gynecology,
"October, 1902."

Had it not been for Antiphlogistine what would have been the result of the case? Again, had it not been for Antiphlogistine what pleasure would the attending physician have taken in making a public record of his case?

The inference is marked. Here is a patient *in extremis* with the entire 900 official remedies of the Pharmacopœa at the disposal of consultant and attendant. Every surgical and medical accessory available, and yet one pharmaceutic preparation proves adequate to the emergency. Demonstrating beyond criticism that Antiphlogistine should be applied in every process of inflammation. That Antiphlogistine relieves blood pressure tension by induction of osmosis and dialysis.

A Case of Stricture Aggravated by Improper Treatment.

By W. C. Watts, M. D., San Francisco.

The history of the case is interesting from the fact that from a supposed small inoffensive stricture of the urethra, the patient developed very serious complications through the careless passage of an instrument into the bladder.

Capt. X., a middle aged man, was recommended by friends to have himself treated, in case it should give him trouble later in life and this was done as already stated, resulting in great pain with considerable hemorrhage. He was told by his medical adviser to return home at once and to pass a catheter whenever it was necessary to urinate and was given some medicine.

Before he had been home 24 hours, he was suffering intense pain and was only able to pass the catheter with great difficutly.

The following day, he found pus on the instrument, blood in the foul-smelling urine and became much alarmed. Writing to his physician, he was told he could be cured for a large fee and at this juncture I was sent for.

I found the patient in great distress, temperature 101 deg., pulse 100, feeble and irregular, the bladder was greatly distended and there was pus on the meatus. After injecting a solution of cocaine into the bladder, I passed a sterilized silver catheter (large size), guiding it into the bladder by passing my two fingers into the rectum.

I drew off thirteen ounces of bloody, foul-smelling urine with pus both in the urine and on the catheter after withdrawing it. I cautiously emptied the bladder by degrees and then thoroughly washed out the bladder with a solution of boracic acid and salicylic acid, also washing and irrigating the urethra with the same solution and then with sterilized water.

In spite of the most careful and thorough examination, I could discover no trace of stricture, although the mucous membrane of the urethra was badly torn and much inflamed.

I placed the patient on Santal-Midy in full doses and repeated the treatment each day and at the third visit, he passed urine

Marshall's Patent Convertible

HAND CASE SADDLE BAGS.

Fig. 1 is Fig. 2 in Saddle Bag Form. One side open. Fig. 2 is Fig. 1 in perfect Hand Case Form, closed.

Write for complete Catalogue Showing all Styles of

Converting and Non-Converting Saddle Bags.

Buggy Vial Cases and Gynæcological Bags at Lowest Prices.

E. B. MARRHALL,

183½-189 Lake St., - - - - Chicago.

NEURILLA

NERVE CALMATIVE

NERVE HEALTH follows its use.

DOSE: Teaspoonful every half hour until nervousness is abated, then four times a day. Teething Children 10 to 20 drops.

DAD CHEMICAL COMPANY, NEW YORK.

THE CHARLOTTE OBSERVER.

A Democratic Newspaper devoted to the advancement of North Carolina and the South. : : : : : :

Daily, $8 Per Year. Weekly, $1 Per Year.

J. P. CALDWELL,

Editor and Manager, Charlotte, N. C.

WE CAN COLLECT

Your old bills. We are turning worthless accounts into ready cash for scores of physicians

NO COLLECTIONS, NO PAY. in each state. The largest exclusive Physicians Collecting Agency in the United States. Write for terms.

Physicians Protective Assn., Kansas City, Mo.

TERP-HEROIN

Foster's

A Respiratory Antispasmodic Sedative and Expectorant

Most successfully indicated in the treatment of all diseases of the respiratory tract, attended with Cough and Dyspnea, Pulmonary and Laryngeal Tuberculosis, Bronchitis, Laryngitis, Pneumonia, Emphysema, Asthma, and Whooping Cough.

CONTAINS

Terpin Hydrate 2 grs. and Heroin 1-24 gr. to the drachm in a vehicle of Prunus Serotina and Glycerine, making it a very agreeable and palatable preparation; being tolerated by the most sensitive stomach.

DOSE:—Teaspoonful every two or three hours.

POSITIVELY

ABSOLUTELY and

INCONTROVERTIBLY

the best RESPIRATOSY SEDATIVE ever offered to the PROFESSION.

It DOES control the cough.

It DOES relieve the congestion of the passage; and

It S make expectoration easy.

Being a remedy of proved value it rests upon its own merits.

PUT IT TO THE TEST.

Prescribe TERP-HEROIN (FOSTER'S) in Original 250 c. c. (8 oz.) bottles to avoid substitution.

Samples and Literature on application.

JOHN B. FOSTER & BROTHER,

Newark, N. J.

normally and at the end of a week was convalescent. I examined the urine for pus after the fourth day of treatment and failed to find any.

There was a most rapid change in the character of the urine, the inflammation quickly subsided and he made a rapid and satisfactory recovery. I finished the case with tonics, (Ferri Quiniæ cum. Strychniæ Cit.) but continued the Santal-Midy in reduced doses for a month.

I feel sure the credit is due to the Santal-Midy, for I have had most gratifying results from its use in several cases of urinary troubles, where other agents had distinctly failed in my hands.

(Signed) W. C. Watts, M. D.,
2348 Union St., San Francisco, Cal,

The Value of Gude's Pepto-Mangan In Anaemia.

By Dr. Enrique Diago, Havana, Superintendent of Hospital No. 1, Havana, Cuba, and Dr. Jose F. Benitez, Havana, Chief of the Laboratory, Hospital No. 1, Havana, Cuba. Translated from the "Progreso Medico," Havana, April, 1902.

Anæmia is a very common disease in this country (Cuba), and consequently one against which the physician is often obliged to contend in the practice of his art. While the use of the ordinary iron preparations often give all the effects that could be desired, yet it usually produces a condition which may be regarded as a secondary disease—constipation. In looking about for a preparation which would not present this very serious disadvantage, which cannot always be counteracted by the coincident administration of laxatives, we came across Gude's Pepto-Mangan, which, according to the published statements of many clinicians, seemed to us a remedy worth trial in a large series of cases. Accordingly, we obtained a sufficient supply of this preparation for our hospital, and began to treat all our cases of anæmia, in which iron was indicated, with Gude's Pepto-Mangan.

In presenting now the results of our observations with this pharmaceutical compound, we may say at once that our expectations were more than realized, when we noted its efficiency in combating the disease, and its perfect palatability and freedom from constipating after effects.

One of us, Dr. Benitez, chief of the laboratory of the hospital, undertook the task of keeping minute records of all the cases observed, including a record of the amount of hæmoglobin and of the number of the red blood cells, both before and after the treatment. For the purpose of illustration, we relate briefly six cases, which show conclusively the effects of Gude's Pepto-Mangan on persons with anæmia, and prove without doubt that the administration of this remedy is connected with none of the disadvantages and discomforts attending the use of the ordinary preparation of iron.

Case I.—N. G., aged twenty-six years, was admitted to the hospital, suffering from loss of nutrition, emaciation, pallor of the skin and mucous membranes, loss of memory, anorexia, mental depression,—in a word, from all the typical symptoms of anæmia. This condition was traced in his case to a chronic malaria, from which the patient had been suffering for a long time. The patient weighed only 102 pounds at the time of admission.

Pepto-Mangan (Gude) was given in doses of two tablespoonfuls twice daily, at breakfast and at dinner respectively, with some cinchona wine. The first blood examination showed 2,400,000 red blood corpuscles c. m., by the Thoma-Zeiss method. Ten days after the beginning of the treatment, this patient, who had been so extremely pale when he entered, began to improve as regards the color of his cheeks and general appearance. His general well-being was so marked that he spoke with pleasure of the marked improvement in his condition which had taken place since he had been taking the new remedy at our hospital. In these ten days he had gained five pounds in weight and was able to walk around the ward without the lassitude which he had felt when he was admitted. The blood was examined a second time, showing an increase of 300,000 red blood cells. The patient was discharged cured after fifty days' treatment, weighing 130 pounds and with a blood-count indicating 2,800,000 red blood cells c. m.

Case II.—Mrs. C. D., aged 34 years, who gave a history of miscarriage, was admitted with the symptoms of anæmia, secondary to the loss of blood occasioned by the accident mentioned. The chief symptoms were emaciation, loss of strength, and gastrointestinal disturbances. She weighed only 90 pounds when she entered the hospital, and her blood showed a marked diminution in the amount of hæmoglobin, and only 2,300,000 red blood cells to the cubic millimetre.

Gude's Pepto-Mangan was prescribed in the same doses as in the preceding case, and all went well until the tenth day, when the patient of her own accord, in order to facilitate the cure, and to accelerate the recovery, took five tablespoonfuls of the preparation during the day, causing a slight disorder of the stomach. The administration of Pepto-Mangan was thereupon discontinued, and tablets of bismuth and salol,

IT WORKS IN THE DARK.

The most inciduous malady is the unsolved condition known as

DIABETES MELLITUS.

It stealthily saps the vitality and soon robs your starved patients of a fighting chance for life. Why continue to drug your diabetic clients. Far better results will be obtained by placing them on NATURES CORRECTIVE OF NUTRITION.

ALLOUEZ MAGNESIA SPRING WATER.

This alkaline agent has long since won its spurs in the permanent cure of Glycosuria, and in 60% of cases of Diabetes.

Allouez possesses a peculiar subtele influence which acts very favorably on this elusive disease. The daily saturation of the patient with Allouez-Magnesia corrects nutrition, cleanses the stagnated emuncotries and elimination is completed without reaction. Mitchell asks: "It it a discovery in the therapeutics of Diabetes?" The scope of its availability includes Nephritis, Albuminuria, Bright's disease and disorders due to excessive acidity.

Write today for full literature. At dealers everywhere.

Prize Medal Paris 1900. Still; half gals: Sparkling; quarts and pints.

ALLOUEZ MINERAL SPRING CO. (P. O.) Green Bay Wis.

Washington Post-Graduate Medical School.

Believing that the National Capital presents many special advantages for post-graduate medical instruction, the leading members of the profession in Washington City have organized a Post-Graduate Medical School. The course of instruction will consist principally of clinics at the different hospitals of the City and of practical laboratory work. One or two didactic lectures will also be given daily upon such branches as Preventive Medicine, Military Medicine and Surgery, Preventive Inoculations, Serum Therapy, etc.

General Geo. M. Sternberg, U. S. A., has been elected President of the Faculty and the Surgeon Generals of the Army, Navy, Public Health and Marine Hospital are members of the Executive Committee.

It is believed that the course of instructions will be especially valuable for physicians who contemplate entering one of the branches of the public service, also for the general practitioner and for those who intend to practice surgery, gynecology, ophthalmology or laryngology as a specialty. The special attention given to Preventive Medicine and to laboratory work in Bacteriology and Sanitary Chemistry will afford public health officers unusual advantages for perfecting themselves in the scientific studies which must serve as a foundation for their practical work.

The first session of the School will commence on Monday, January 12, 1903. Circulars containing full information will be sent upon application to the President of the Faculty,

GENERAL GEO. M. STERNBERG, U. S. Army.

2144 California Avenue, Washington, D. C.

together with a purgative were given. Five days later, the Pepto-Mangan was resumed, at first in doses of two teaspoonfuls, and two days later in doses of two tablespoonfuls. The further course of the treatment went on without any mishap, and the patient recovered completely. On leaving the hospital the hæmoglobin was found normal, and the number of red blood cells was found to have increased to 3,500,000 c. m., while the patient's weight had increased twenty-one pounds within fifty days.

Case III.—Mr. M. D., aged 26 years, who had suffered during the preceding month from an attack of acute articular rheumatism involving a number of joints, entered the hospital complaining of the symptoms of anæmia. He had the appearance of a convalescent, with pale skin and mucous membranes, fatigue in walking, emaciation, etc. There was œdema about the ankles, but no valvular lesion in the heart, and there were in addition, absence of appetite, insomnia, functional depression of the genital apparatus, and dyspepsia. The patient weighed only 92 pounds, and his blood when examined showed a decrease in the amount of hæmoglobin and only 2,500,000 red blood cells c. m. At the end of fifteen days' treatment, which consisted of the administration of two tablespoonfuls of Pepto-Mangan (Gude) at breakfast, of the same amount at dinner and of an additional tablespoonful at noon, the patient had gained a great deal of strength, his pallor had almost disappeared, the hæmoglobin had increased and reached its normal quantity, and the red blood cells had increased to 3,200,000 c. m. The patient was therefore discharged completely cured at the end of forty days after admission.

Case IV.—Mr. R. G., aged 42 years, who did not show any signs of organic disease, and who presented no characteristics of a gouty or lithæmic diathesis, was admitted to the hospital in a greatly disturbed state of mind on account of attacks of vertigo, palpitation of the heart, extreme weakness, and various erratic pains in the muscles. He gave a history of a recent attack of influenza, during which his nervous symptoms had become intensified. He had not had a very marked rise of temperature, and the respiratory passages were scarcely affected during this attack, but there were severe pains in the back and joints, and an intense headache. The examination of the blood showed the presence of 3,000,000 red blood cells c. m., and the patient was found to weigh only 110 pounds.

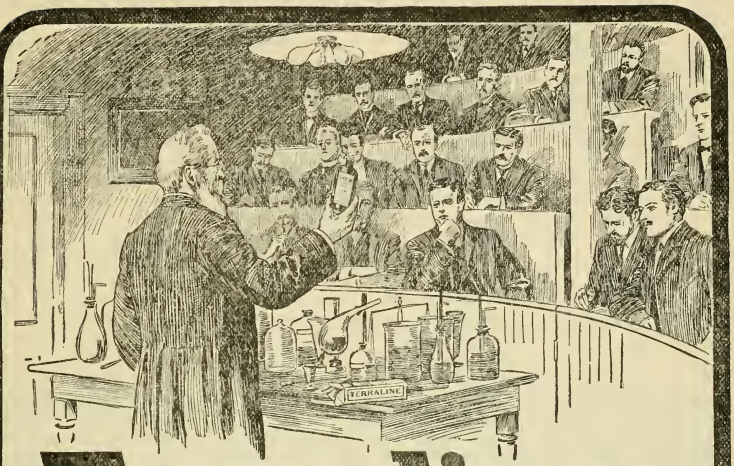
He was placed exclusively on Pepto-Mangan (Gude) treatment. Twenty days later, the pains had ceased, he ate well; his weight had increased to the extent of four pounds, and the red blood corpuscles had increased in number by 200,000. Thirty days after admission he was discharged cured.

Case V.—Miss C. P., aged 16 years, was admitted to the hospital with a very pale skin and a deficient muscular and adipose development. Her menstruation had become irregular, and she had suffered from various nervous disturbances. Her growth had not kept in harmony with her nutrition, and she presented the characteristics of chloro-anæmia, as frequently seen in Cuban girls,—namely, accompanied by a series of neurasthenic symptoms. She weighed only 87 pounds, and the blood-count showed only 1,800,000 red blood corpuscles c. m. After ten days' treatment, the number of red blood corpuscles increased by 200,000, and the weight of the patient by three pounds. Twenty-six days after admission, she was removed from the hospital by her relatives, and on discharge her weight was 94 pounds.

Case VI.—Mr. G. F., aged 38, whose previous history was negative, and who had not suffered from any severe illness shortly before admission, entered complaining of loss of flesh and strength, decrease of normal weight and extraordinary fatigue after his usual work. He attributed these symptoms to transgressions of hygienic rules. The first blood examination showed 2,600,000 red blood cells c. m. The patient weighed 106 pounds on admission. Thirty-six days later, after having been under treatment with Pepto-Mangan (Gude) during the entire period, he was discharged at his own request. He had increased eleven pounds in weight and his red corpuscles numbered 2,850,000 c. m. (an increase of 250,000). He went back to his usual work without experiencing any unusual fatigue.

To sum up the results obtained with the employment of Pepto-Mangan (Gude) in the treatment of anæmias, we may say conscientiously, that it is the best remedy we know of for this purpose, and that we do not hesitate to commend it to the medical profession at large, and especially to our confréres in Cuba, as an iron preparation that possesses all the advantages that can be demanded of such a remedy and none of the disadvantages that are characteristic of other iron preparations. We would especially emphasize also that Pepto-Mangan (Gude) is very pleasant to the taste, and is most easily taken by patients of all ages and with the most delicate digestion.

Havana, March, 1902.



Terraline

is shown by CHEMICAL DEMONSTRATION to be a pure non-toxic preparation of petroleum, containing its mineral hydrocarbons and other essential constituents in an entirely unexceptionable form. CLINICALLY, for

Consumption, Coughs, Colds

and all pulmonary troubles as a combined lubricant, sedative, and nutrient it is unsurpassed. Being tasteless and odorless, it is palatable and readily taken, even by children. PHYSIOLOGICALLY, being completely emulsifiable by the digestive juices, it is wholly absorbable and thus does not cause nausea or eructations; as an antiseptic, it counteracts intestinal auto-intoxication; while, by stimulating the digestive functions, it improves appetite and aids defective nutrition, thus directly combating the wasting common in Diseases of the Lungs.

TERRALINE is put up in 12-oz. bottles only; (*never sold in bulk*), and may be obtained at all first-class prescription druggists.

A regular size bottle will be forwarded free to any physician, upon receipt of 25 cents to pay carriage.

The Hillside Chemical Company,

Sole Proprietors. Newburgh, New York.

Euquinine in Pediatric Practice.

Dr. Rocaz,[1] of Bordeaux, considers the availability of this drug for administration to children, because of its almost total lack of unpleasant taste. Euquinine is the ethylcarbonic ether of quinine, occurring as white, needle-like crystals, sparingly soluble in water, but very readily in ether, chloroform, and alcohol. The author administers it in suspension in a teaspoonful of sugar-water. It was always taken without repugnance. In several cases in which it was thus prescribed and readily taken, the administration of quinine by the mouth had been impossible. It also has the advantage of being well tolerated by the digestive tract even when given in massive doses.

Experiments to test the absorption of euquinine showed that elimination by the urine began between the first and second hour after examination, reaching its maximum after seven hours. These conclusions agree with those of Gamarelli, in Italy, except that this observer found elimination to begin from the ingestion of the drug.

Euquinine is therefore absorbed, and produces all the therapeutic effects of quinine medication. Its indications in pediatric practice are the same as those of the alkaloid from which it is derived. Its contraindications are not so numerous, since it is better borne by the digestive organs. The dosage is somewhat higher than that of quinine. During the first year Rocaz uses from 10 to 15 centigrams a day (1½ to 8¼ grn.); from one to two years, 20 to 30 ctg. (3 to 4½ grn.); from two to four years, 30 to 60 ctg. (4½ to 9 grn.); from 3 to 6 years, 40 to 80 ctg. (6 to 12 grn.), and from six to ten years, 60 ctg. to 1 gm. (9 to 15 grn.).

Saloquinine as an Antiperiodic.

Saloquinine is chemically defined as the salicylic-acid ester of quinine. It occurs as an odorless and tasteless powder, which is insoluble in water, sparingly soluble in alcohol or ether, and freely soluble in chloroform. Dr. W. E. Fitch,[2] of Savannah (Ga.), states that he has discarded quinine for saloquinine in malaria; the presence of salicylic acid in the latter gives it greater power than quinine for acting upon infusoria. The dose of saloquinine is one and one-half times that of quinine. Dr. F. considers it advisable to follow its administration, particularly in febrile patients in whom the gastric juice is apt to contain but little acid, with a weak solution of hydrochloric acid. It is readily taken by placing 10 to 20 grains of the dry powder on the tongue, when a half wineglassful of water carries it down. No disgusting, bitter taste is experienced, and this is a great advantage in children. The author has not had any annoyance reported to him from taking enormous doses, whereas from quinine he has sometimes observed cinchonism that was unbearable.

Dr. F. reports in detail a case of tertian estivo-autumnal malarial fever, and two of malarial hemoglobinuria, all of which promptly yielded to saloquinine, while quinine administered for a reasonable length of time and in gradually-increasing quantities up to 50 grains a day, had given but little or no benefit. In the first case he gave 20 grains of saloquinine twelve hours before the expected paroxysm. In the second case a 10-grain powder was given every half-hour for six doses; the pulse and temperature gradually returned to normal, the urine cleared up after the first day's use of the drug and remained free from coloring-matter thereafter; and the patient was discharged cured three weeks after being first seen. In the third case, described in detail, also one of hemoglobinuric fever, the bloody urine showing also numerous casts and much albumin, 40 grains of saloquinine were given at once, and a hypodermic of ⅛ grn. morphine with 1-200 grn. atropine; and in 4 hours 25 grn. more of saloquinine were given and followed by a solution of hydro-chloric acid. Vomiting continued nearly all that night, and about 8 oz. of dark-red urine was voided. At noon the next day the patient was partially under the effect of saloquinine and vomiting much relieved. Saloquinine was now ordered to be given at 6 a. m. and 6 p. m. daily, 1 dram at a dose. Two days later the urine had cleared up, and a week afterward there were no further indications of malarial paroxysms and the urine was normal. In both of the hemoglobinuric cases, immediately upon stopping the quinine the hemoglobinuria also ceased, and did not return, and both patients made uninterrupted recoveries.

Dr. Joseph Sternberg,[3] has used the remedy on his own person and in several cases of malarial affections. The single doses were 16 to 24 grn., once or twice daily, and the results have borne out the favorable conclusions of other authors as to the specific virtues of saloquinine in malarial disease.

Dr. S. V. Kolozsvary,[4] of Kolosvar, relates his experience with saloquine in 13 cases of malaria, mostly in adults. He gave 33 grn. in three portions in the course of an hour and a half, three hours before the expected paroxysm. The powder was placed

1 Amer. Jour. of Med. Science, CXXIV, No. 5.
2 Internat. Med. Mag., XI, No. 4.
3 Aerztl. Centralzeit., XIV, No. 23.
4 Die Heilkunde, VI, 1902, No. 9.

FEED YOUR PATIENTS,

they need a highly nutritious, easily assimilated food.

TROPHONINE

contains besides the nutritive elements of beef, gluten of wheat and nucleo-albumins, the enzymes of the digestive glands.

As it does not irritate the stomach and leaves no residue to enter the intestinal tract, it is indicated in all those conditions where artificial feeding is necessary and is especially useful in Typhoid Fever, Vomiting of Pregnancy and diserses of the Digestive System.

SAMPLES AND LITERATURE ON REQUEST.

Send for illustrated booklet and fee-table of our

Pathological, Chemical and Bacteriological Laboratories.

REED & CARNRICK,

42—46 Germania Ave., JERSEY CITY, N. J.

on the tongue and washed down with a swallow of water. The author's conclusions are as follows: in the tertian type the disease promptly disappears under the use of saloquinine, the temperature becomes normal, and the blood remains free from the peculiar parasites; and in the quartan type, which is known to be more resistant to quinine, saloquinine has the same effect as quinine but must be given in correspondingly larger doses; saloquinine is a specific in malaria, possessing two important advantages over quinine: tastelessness, and freedom from bad effects.

Thiocol in Pneumonia.

Dr. M. Eberson,[1] was the first to report on the use of thiocol in pneumonia, after employing it in eleven cases with uniformly satisfactory results; the crisis occurred as a rule in twenty-four to seventy-two hours after beginning the treatment; no symptoms of intolerance were observed, and there was no need of administering any antipyretic. The dose for children under 1 year was 8 grains per day; for children between 1 and 3 years, 16 to 24 grains daily; for children of 10 years, up to 1 dram; adults took 75 grains per day, evenly distributed.

Equally favorable results have been obtained with thiocol by Dr. F. Stiffter, of Altstadt (Bohemia), and by Dr. A. Heil, of Konigswald, as appears from communications to the manufacturers. Dr. Stiffter gave the drug in several cases of pneumonia, in the dose of 1 Gm. (15 grn.) 3 times a day, and observed a remarkable effect on the disease. A striking improvement was particularly noted in a case taking a chronic course, where the crisis had not set in on the seventh day and the reddish-brown expectoration was still present during the third week; and in another case, though the disease had set in with violent pains and high fever, the crisis was brought about on the third day by the administration of thiocol in the dose noted.

Dr. Heil writes that he tried thiocol in a severe case of influenzal pneumonia, giving a 1 Gm. (15 grn.) powder every two hours, with the result that the next day the patient was free from fever and all suffering; the fever did not return, and convalescence quickly progressed. While he does not claim that the thiocol is alone responsible for the favorable turn of events, he firmly believes that the drug has some specific action in cases of pneumonia, and recommends further trials of the treatment.

1 Aerztl. Central-Ztg., 1902, No. 8.

Ichthargan in Gynecology.

Angeli,[2] has employed ichthargan (ichthyol-silver) in a number of cases, applying it in the following forms: Vaginal capsules or ovules, each containing 0.2 ro 0.25 Gm. (3 to 4 grn.) of the medicament combined with solidified glycerin; 2 per-cent. aqueous solution, by intra-uterine injection; 1-per-cent. solution in glycerin or distilled water, on tampons. He reports that he obtained excellent results in simple catarrhal and gonorrheal endometritis. Ichthargan appears to act more promptly even than ichthyol as an antiphlogistic, and to do its work with greater thoroughness, residual catarrh being less in evidence after the inflammatory symptoms have subsided.

Atropine Methylbromide.

Atropine methylbromide, or methylatropine bromide, is an atropine derivative having the composition represented by the formula $C_{18}H_{26}NO_3Br$. It contains almost 21 per cent. of bromide, and crystallizes in white leaflets which are readily soluble in water and diluted alcohol but sparingly soluble in absolute alcohol or in chloroform. Animal experiments made by Dr. L. Vaubel,[3] of Darmstadt (Germany), demonstrate that it has a prompt mydriatic effect and a weaker action on the heart than atropine sulphate. In six patients 2 drops of a 1-per-cent. solution of the compound were instilled into the eye; mydriasis set in quickly and soon disappeared—points of great value to ophthalmologists. In two other patients, 1-per-cent. solution of atropine methylbromide was dropped into one eye and atropine-sulphate of the same strength into the other. Mydriasis supervened in all about the same time; but it disappeared in the case of the eyes treated with the meythylbromide within 4 hours, while in the eyes treated with atropine it was still present, together with paresis of accommodation, after 3 days.

The author administered atropine methylbromide in doses of 0.006 to 0.012 Gm. (1-10 to 1-5 grn.) per day and per dose in 4 phthisical subjects to check the excessive sweating. The effect was that the sweats were promptly suppressed in every instance. It is stated that atropine methylbromide does not produce the dryness of the throat and upper air-passages, common to atropinesalts.

In nervous sweating occurring in two neurasthenic and one hysterical individuals, 0.006 Gm. (1-10 grn.) of the new atropine derivative thrice daily had a very good influence; and the same medication was successful in relieving siaiorrhea in a neurasthenic subject.

2 American Gynecology, I, No. 3.

3 Wochenschr. Jur. Ther. u. Hyg. des. Auges, VI, No. 2.

Painful Monthly Periods.

MANY DOCTORS PRESCRIBE a combination of DIOVIBURNIA and NEUROSINE, (equal parts) to abate the PAIN and NERVOUSNESS of DYSMENORRHEA. DIOVIBURNIA acting as a reconstructor of parts affected, NEUROSINE allaying the pain, RESUSCITATING and TONING the Nervous System. Physicians can prescribe

DIOVIBURNIA and NEUROSINE

with impunity, as these Products CONTAIN NO OPIUM, MORPHINE, CHLORAL or other deleterious drugs.

Full size bottle of each, free, to Physicians (who have not already received same) desirous of giving DIOVIBURNIA and NEUROSINE an impartial trial, they paying express charges.

DIOS CHEMICAL CO., : : St. Louis, Mo.

The Dr. Deimel Underwear

"A personal test of two years, and the clinical testimony of scores of tubercular patients, have convinced me that your underwear is a positive boon to the tuberculous, and I state, with all sincerity, that it is my belief that if all such patients could afford the Deimel Linen-Mesh, there would be an end to 'colds,' which are the bane of tuberculous, and the greatest hindrance to the early arrest of the disease." Very sincerely yours,

LAS CRUCES, N. M., October 12, 1901. J. FRANK MCCONNELL, M. D.

The Dr. Deimel Underwear of cleanly, absorbent Linen-Mesh, is of invaluable aid to the physician in the treatment of any and all diseases. : : : : : : : : :

THIS LABEL ON THE GENUINE,

Free Booklet and Samples of the Cloth sent by addressing

The Deimel Linen-Mesh System Co.

DEPT. Q. 21—491 BROADWAY, NEW YORK.

SAN FRANCISCO,	WASHINGTON,	BROOKLYN,	MONTREAL,	LONDON, W. C., ENG.
111 Montgomery St.	728 15th St. N. W.	510 Fulton St.	2202 St. Catherine St.	83 Strand [Hotel Cecil.]

The well-known manufacturers of Surgical Dressings and Supplies J. Ellwood Lee Co., Conshohocken, Pa., have the exclusive manufacture and sale of Surgical Dressings, Supporters and Suspensories made of the Dr. Deimel Linen-Mesh.

Stypticin in Uterine Diseases.

Dr. Hirsch,[1] has studied the effect of stypticin (cotarnine hydrochlorate) in uterine diseases, and advises his patients to take the remedy four times daily for four days before the date of the expected menstruation, and for four days during this period. The effect of the remedy increases from month to month, but it must not be discontinued as soon as the patient improves. If continued for some time, the hemorrhages grow less and less abundant. The drug may also be successfully used in dysmenorrhea, as it has some of the properties of hydrastis, while it is far less disagreeable to take. It possesses the advantage over ergotin is administered as a rule subcutaneously or by rectum. Stypticin has, in addition, a soothing effect, especially in cases of dysmenorrhea. [The usual dose in dysmenorrhea and menorrhagia is $\frac{3}{4}$ to $1\frac{1}{2}$ grn. 4 times daily in the manner described above; sugar-coated tablets are the preferable form.—Ed. M. A.]

Marsyle Clin. Solution for Injection in Sterilized Tubes.

The hypodermic injection of the salts of iron is not generally advised. Certain authors believe them useless; others regard them as painful, and the causes of a strong local reaction. The result thus far with the injection of Marsyle Clin solution shows that it is rarely painful, and is not accompanied by any irritation.

Injection should be deeply made in the gluteal muscles. The hypodermic method may be employed when the oral method is contraindicated. The solution for injection is sterilized, and contains exactly five centigrammes of Marsyle to the cubic centimetre.

It is furnished in sterilized tubes, the contents of which always slightly exceed a cubic centimetre, to permit of completely filling the syringe.

Note.—After injecting the solution, carefully wash the needle and syringe in boiling water, to avoid oxydation.

Doses.—At the outset, one injection every two days, of one-half to one cubic centimetre. After the susceptibility of the patient has been tested, daily treatment may be instituted.

Many physicians has doubtless wished that he might have a new clean syringe for each of his diphtheria cases when he wanted to inject antitoxin, but it is doubtful if anyone ever thought such would be possible before the advent of Stearns' Syro-Bulb. This ingenious device furnishes a syringe with each dose of antitoxin.

1 New York Med. Jour., LXXV, No. 20.

American Medical Association Notes.

Next meeting in New Orleans, May 5, 6, 7 and 8, 1903. General Officers of the American Medical Association, 1902–1903: President, Frank Billings, Illinois, First Vice President, J. A. Witherspoon, Tennessee; Second Vice President, G. F. Comstock, New York; Third Vice President, C. R. Holmes, Ohio; Fourth Vice President, James H. Dunn, Minnesota; Secretary-Editor, George H. Simmons, Illinois; Treasurer, Henry P. Newman, Illinois; Chairman Committee of Arrangements, Isadore Dyer, 124 Baronne Street, New Orleans, La.

The Local Committee of Arrangements held a meeting November 15, at the New Orleans Polyclinic, with the following members present: Dr. Isadore Dyer, Chairman; Drs. John Callan, Finance Committee; E. S. Lewis, Post Office Committee; E. Souchon, Transportation Committee; Q. Kohnke, Exhibits; H. B. Gessner, Badges; R. Matas, Registration; J. F. Oechsner, Halls; F. A. Larue, Publication. Besides these were Dr. J. B. Guthrie, Secretary of the Committee, and Drs. C. J. Miller and E. Moss, representing other subcommittees.

The Chairman called attention to the purpose of the meeting as crystalizing the plans for the coming meeting of the Association. He stated that all of the committees had been organized and were well under way. He had been in communication with the President, Secretary and Treasurer of the Association, and that the necessary steps were clear. He had communicated with each of the sections, and that the secretaries of most of these had advised him of the probable attendance of each and the like number for the banquet. Southern journals had been circularized with an idea of developing attendance through the Southern States. Some of these had made editorial notice of the communication.

Dr. Callan reported that the Finance Committee had several meetings and had decided to issue a circular to the lay public, about December 1, appealing for contributions and stating the importance and character of the convention in May. The medical profession were to be circularized by the respective arrangements committee of the Association and of the State Society. It was decided to name a representative of the Association in each of the Congressional Districts in the State in order to derive contributions from that source. This plan had been agreed upon because of the proffer of assistance from country members who were

Liquid Febrisol

(TILDEN)

Doctor:

Read this formula, then send for sample and literature. After a trial you will be convinced that Febrisol is the best anti-pain and febrifuge ever offered the medical profession. It is as reliable as morphine; has none of the bad after effects, and is opposed to cardiac depression.

Formula:

Each fluid dram contains chemically pure

Phenacetin	1 Gr.
Salol	½ Gr.
Cit. Caffeine	½ Gr.
Acetanilid	1¼ Gr.
Tartaric Acid	¼ Gr.
Soda Bicarb	1½ Gr.

Prepared expressly for Physicians' Prescriptions.

THE TILDEN COMPANY,

Pharmaceutical Chemists.

New Lebanon, N. Y. **St. Louis, Mo.**

A New Syringe for Every Case.

PATENTED SYRO-BULB.

Only a physician can appreciate the increased safety and satisfaction of having a new, surgically clean syringe for each case of diphtheria.

That is possible with Stearns' Antitoxin—and with Stearns' only—because every dose of it is put up in a glass special bulb that is quickly convertible into a unique hypodermic syringe. This saves not only the time required for sterilizing the syringe *before* using but the trouble of cleaning it *afterwards*.

Perfected asepsis, enhanced convenience and safety of administration, economy of time and elimination of annoyance—these are some of the considerations that have influenced tens of thousands of physicians to use our product.

Do they not appeal strongly to you also?

Stearns' Diphtheritic Antitoxin is prepared under the strictest scientific precautions in our model biologic laboratories. Its purity is positively guaranteed and no ill-effects have ever followed its use.

> I think Stearns' Antitoxin superior to all others on the market both in efficacy and convenience of administration.
>
> H. L. STICKNEY, M. D., Newport, N. H.

Every druggist has our serums and vaccines or can get them on very short notice. If physicians who find difficulty in obtaining them will advise us we will see that they are promptly supplied thereafter.

BIOLOGIC LABORATORIES OF

FREDERICK STEARNS & CO., Detroit, Mich., U. S. A.

Windsor, Ont. London, Eng. New York City.

anxious to share the honor and burden of the entertainment.

Dr. Gessner reported for the Committee on Badges that he had secured designs and prices from several manufacturers, which he submitted for the advice of the general committee. He had been unable to get any information from the 1902 committee but he secured a sample of the badge and souvenior of the St. Paul meeting. After some discussion it was decided that the committee be authorized to further investigate designs and to secure bids on 5,200 badges at a price not to exceed $800.00. It was the sense of the committee that the souvenir should be suggestive of New Orleans and at the same time of sufficient attractiveness to be taken away as a token of the city.

Dr. Oeschner for the Committee on Halls presented a very interesting report, showing the capacity in floor space and seating of the several available halls in the city and elaborating the plan of disposition of the several sections and bodies requiring accommodation. The work of this committee practically disposed of the plan of the meeting and it was agreed that, unless strong reasons were advanced to the contrary, the meeting should be held in the section of the city including Tulane Hall, Tulane and Crescent Theatres, Orleans Parish Medical Society, the Polyclinic, Medical College, Charity Hospital, Grunewald Hotel, as these afforded ample seating accommodations as well as space for exhibits, etc.

Dr. Kohnke stated that the Committee on Exhibits had received several applications for space. Already a list was being made of probable exhibitors who were to be circularized; this was being compiled from the names of those exhibiting at previous meetings and among reputable drug manufacturers, etc.

Dr. Parham reported, through Dr. Gessner, that the Committee on New Membership had already begun circularizing neighboring states and that some 6,000 eligibles would be reached within the next few weeks. Already a large number of members had been enlisted in Louisiana.

Dr. E. S. Lewis reported that the Post Office Committee had conferred with the Postmaster of New Orleans, who had promised to supply alphabetically arranged boxes for the distribution of mail, which was to be delivered at the Bureau five times a day.

Dr. Martin reported, through Dr. Moss, for the committee on Hotels and Boarding Houses, giving the hotel capacities and relating that a systematic bureau of information would be established regarding boarding houses, a list of which was already being made. At the recent bankers' convention this system had been used and had been found satisfactory.

Dr. Matas reported for the Committee on Registration that he had received full instructions from the treasurer of the association, and that as soon as the location of this department had been determined, the work of his committee could be easily planned and executed.

At the adjournment of the committee meeting the members of the several subcommittees agreed to elaborate the work of each for a meeting to take place in January. Altogether it may be seen that the Arrangements Committee has the matter well in hand, and that early in the year the plans will be practically complete.—*N. O. Medial and Surgical Journal.*

Extract from "Treatment of Diphtheria,"

By Dr. J. W. Pearce, in American Practitioner and News, July 15th, 1902.

"To briefly relate, this is the way I treat diphtheria, and I have never lost a case. If I can get perfectly fresh antitoxine I give it, but if it cannot be had perfectly fresh I do not. Whether antitoxine is given or not, I give ecthol in full doses appropriate for the age of the patient, every three hours, administered by the mouth. The entire fauces, larynx, and pharynx are sprayed with a mixture of ecthol and peroxide of hydrogen, three parts of the former to one of the latter, every fifteen to thirty minutes. Calomel in small doses is administered every hour until the bowels are thoroughly moved. Nourishing and supportive diet is given at short, regular intervals, and everything done to make the patient comfortable in the way of supplying fresh air, etc. I have been using this plan, modifying it to suit the needs of each individual case, for several years, and cannot recommend it in too glowing terms to my fellow practitioners, knowing that it will give good results and entire satisfaction if it is carefully and effectively administered and carried out. Nothing can save a patient in articulo mortis, and it is needless to try this in such cases hoping to do something."

Urticaria.

Burgess recommends the use of the following formula in urticaria, and also in papular and vesicular diseases:

Hydrargyri chloridi corrosivi	1½ gr.
Chloroformi	20 ♏.
Glycerini	2 fl. oz.
Aquæ rosæ	6 fl. oz.

M. ft. lotion.

S.: Use locally.

ΗΛΕΚΤΡΟΝ

Is the greek name for Amber. It is pronounced Electron.

Did you ever think over the fact, that Amber was the first product in which Electricity was found, and this because Amber is the most Electric Product known.

An Electric Machine

built with the same product as Amber as the productive element is an old thing made new again.

It can be used for X-Ray and Electrical Treatment, for the Treatment of Cancer, Epithelioma, Lupus, Sarcoma, Etc.

Write us for particulars before you buy.

The Sorensen Mfg. Co.

Revenna, Ohio, U. S. A.

A Most Seasonable Suggestion.

As the time is fast approaching when there is a demand for cough remedies, it will not be amiss to present a suggestion and a good remedy. In place of opiates which always dry up expectoration, disturb digestion, cause constipation, and render the patient uncomfortable and drowsy, it is desirable to employ the most efficient and popular cough sedative of the present day, namely: Antikamnia & Heroin Tablets. This remedy relieves cough by its soothing effect upon the air-passages, but does not interfere with expectoration, and, in fact, renders it easier by stimulating the respiratory muscles. Only a very small dose, one tablet, every one, two or three, hours, for adults, is required to produce a satisfactory result.—Notes on New Pharm. Products.

Influenza.

The following formulæ are noted in New York Med. Jour., in the treatment of the different organs involved in influenza:

To disinfect the ears:

℞.—Hydrarg. chloridi corros., gr. j.
Alcoholis, ʒ iss.
Aq, dest., ʒ ij.
Glycerin, ʒ iv.

M. Sig. Instill a few drops into the ear t. i. d.

For the nose;

℞.—Menthol, gr. iij.
Ol. petrolati, ʒ ss.

M. Sig. Instill a few drops into the nose t. i. d.

For the throat:

℞.—Alcoholis, ʒ ss.
Resorcin, gr. x.
Salol, gr. viiss.
Aq., q. s. ad O ss.

M. Sig. To be used frequently as a gargle; or:

℞.—Acidi salicylici, gr. v.
Spir. menthæ pip., q. s. ad solutionem.
Aq., q. s. ad O ss.

M. Sig. As a gargle.

To disinfect the room:

℞.—Acidi carbol.,
Acidi salicylici, aa gr. 75.
Mentol, gr. 30.
Alcohol, ʒ 8.
Tinct. eucalypti, ʒ 1.

M. Sig. Two to four tablespoonfuls in 16 ounces water, to be evaporated in the room.—*Jour. A. M. A.*

Early Stages of Pharyngitis and Laryngitis

A most valuable sedative inhalation for acute inflammation of the pharynx is as follows:

Compound tincture of benzoin, 1 fl. dr.
Water at 150 deg. F. 20 fl. oz.

Inhale the vapor that arises.

Coryza.

Riforma medica ascribes the following to Hallopeau:

℞.—Powd. menthol, gr. 3¾
Powd. betol, gr. 37½
Cocaine, gr. 7½

M. Sig. To be used as a snuff.—*N. Y. Med. Journal.*

Diaphoretic Powder for Colds.

℞.—Powd. camphor, gr. 1.
Powd. opium, gr. ½.
Potassium acetate, gr. 3.
Sugar, gr. 150.

M. To form one powder, which is put into a cup of tea and taken at bed-time.—*Practitioner.*

Toothache.

℞.—Chloral hyd.,
Camphor,
Carbolic acid,
Glycerin, aa ʒ ij.
Morphin, gr., ij.

M. Sig. Use in aching tooth with cotton.

La Grippe.

℞.—Heroin,	gr. ¾	045
Ammon. chloridi	ʒi	4
Syr. picis liq.	ʒi	30
Syr. tolutani	ʒi	30
Syr. pruni virg.	ʒss	15

M. Sig.: Two teaspoonfuls every three or four hours.

Hemicrania.

N. F. Howard (Atlanta Journal-Record) employs the following combination in the treatment of migraine:

℞.—Ammon. muriatis	ʒiii	90
Tinct. belladonnæ	ʒi	4
Tinct. hyoscyami	ʒii	8
Aq. menth. pip	ʒiv	16
Aq. camphoræ q. s. ad	ʒxvi	480

M. Sig.: One-half to one teaspoonful given in sweetened water every two or three hours.

For Acute Laryngitis.

The Medical Progres for January 25th recommends the following:

℞.—Menthol, 30 gr.
Spirit of pinus sylvestris,
Spirit of eucalyptus, aa 45 ♏
Tincture of benzoin,
Tincture of tolu, aa 30 ♏.

M.

The patient should breathe twice or thrice daily the vapor of a few drops of this mixture. Evaporate in an iron spoon over a lamp.

The Charlotte Medical Journal.

Vol. XXII. CHARLOTTE, N. C., FEBRUARY, 1903. No. 2

The Organization of the Medical Profession.*

By George W. Pressly, Charlotte, N. C.

Within the past few years a great effort has been made to bring into one compact organization all the physicians living in the United States. In this great work the American Medical Association through its leaders has been the prime mover and most earnest worker. After the reorganization of this Association a committee was appointed to suggest a constitution which would bring all the State Societies into line in this undertaking. At this time the relation of the State to the National Association was very indefinite and not well defined, and the National Association instead of representing the entire profession of the country, simply represented the locality in which the annual session was held.

Under the plan recommended by the committee all this has been changed and the American Medical Association made a truly representative body of every section of the country. But this reorganization scheme not only concerns the National and State Associations, but every local society as well. In fact the local society has been made the door to the entire building and for this reason the Charlotte Medical Society should be interested and willing to consider the essential features and conditions of the proposed organization.

It is hardly necessary in this day and time to waste words in the discussion of the advisability of organization. Surely there is no disposition to question the propriety of all of us coming closer together for the sake of peace and harmony and for the advancement of the dignity and honor of the profession. We might discuss the question whether the cooks in Charlotte live together more amicably than do the doctors or whether the brick-layers of the city are better organized or not but the value of living together as units in one great society needs no argument. To begin with the local society, the plan proposed in general is this: Each local society is to be a county society made up of every reputable physician in that county, the state society to consist of every county society in that state and the National Association to include every state society in the land. To adopt this plan it would mean that the Charlotte Medical Society would become the Mecklenburg Medical Society, and its membership would include every reputable physician in the county and every member would be by virtue of his local membership a member of the State Association and through his delegate he would have a voice in the American Association. Both the State and National Associations would have delegates and regular members, the delegates to look after and decide all ordinary business and the regular members to do the purely scientific work. All members of local societies would be regular members of the State Association and each county would elect its own delegate to look after the ordinary business. This separation of the business from the scientific work would increase the value of a State meeting more than a hundred per cent. to the average physician. Our State societies meet only once a year and of necessity there is a great deal of business, election and wire-pulling and all of this takes place in the general meeting to the detriment of the scientific part of the program. The doctor who has left his practice to spend a few days with his brothers and incidentally to pick up any information he can is disgusted with the lack of interest in the papers or the discussion and he goes home perhaps never to return again. How often is it that an election packs the hall while a really scientific paper is read to empty chairs. How great would be the improvement if the meeting was purely in the interest of science. In the plan proposed the business would be more carefully considered by a few well chosen men who would represent somebody and the general session would be left free to discuss medicine without let or hindrance, and this plan would not only help the State Association but the county society as well.

For instance a member of the Mecklenburg Society in good standing can get a transfer card and move into any other county of the State and be a member in good standing there without any other ceremony than the presentation of his card. Instead of coming in among strangers he comes in among members of his own society. On the other hand if a physician was guilty of unprofessional conduct in one county his record would follow him into any other county in the State and would be accepted as convincing evidence as to the character of the newcomer and throughout the Union a man's standing at home would be the level of his reception abroad.

The adoption of the constitution pro-

* Read before the Charlotte Medical Society, January 20, 1903.

posed by the committee of the American Medical Association would mean very little change in the constitution which we already hold. The only change of any moment would be in regard to the fee bill. In taking up the constitution suggested in detail we find that the first article has to do with the name and title of the society which is of course left blank except that it shall be a county society. The second article has to do with the purposes of the society and is as follows:

"The purposes of this Society shall be to bring into one organizatian the physicians of this county; and by frequent meetings and full and frank interchange of views. to secure such intelligent unity and harmony in every phase of their labor as will elevate and effectuate the opinions of the profession in all scientific, legislative, public health, material and social affairs, to the end that it may receive that respect and support within its own ranks and from the community to which its honorable history and great achievements entitle it; and with other county societies to form the State Medical Association, and through it, with other state associations, to form and maintain the American Medical Association."

The third article makes every physician residing and practicing in the county and legally registered as such and who is in good standing eligible for membership. The 4th article says that regular meetings shall be held monthly or oftener as the society may determine. The 5th article makes the officers the same as we have now with the addition of regular delegates to the State Society who are elected for two years. The 6th article is on funds and expenses. The 7th article concerns the charter which is to be obtained from the State Society. The 8th article provides for trustees and articles of incorporation when necessary. The 9th article is in regard to amendments which may be made by a ⅔ vote, the proposed amendment having been read at 2 previous regular meetings. The By-Laws are divided into eight chapters. The first on membership. 2nd on powers and duties. 3rd on officers. 4th on committees; the 5th on funds and expenses; 6th, order of business; 7th, rules of order, and 8th on amendments.

The principal change recommended so far as this society is concerned, or any other society that has a fee bill and tries to enforce it is found in Section 3, Chapter 2 of the By-Laws and reads as follows: "Agreements and schedules of fees shall not be made by nor in this society, but at least one meeting during each year shall be set apart for a full and frank discussion of the business affairs of the profession of the county with the view of adopting the best methods of the most successful members as rules for the guidance of all. In all proper ways the public shall be taught that business methods and prompt collections are essential to the equipment of the modern physician and surgeon and that it suffers even more than the profession where this is not recognized."

Nothing is said about a delinquent list but as all proper ways of learning the public to pay their bills are recommended, the delinquent list would come in as a proper way. A fee bill could be made for the guidance of the members, but no compulsion is to be used to make the members adhere to it. Insurance Examinations being outside of the regular duties of the profession are entirely ignored, and if any one wants to help out the poor, needy and dependent insurance companies by doing their work free he is at perfect liberty to do so.

But after all the best plan is to ignore this class of work entirely, and if a man has plenty of time let him do this kind of work for nothing in order to get aquainted with people who at some future time might send for him to vaccinate the cook. So then the only radical change proposed by the committee is in reference to our fee-bill and insurance examination rates, and as these men have made a careful study of the matter it might be best to leave both these things outside the society. After all, the man who charges the largest fees is not for that reason alone the most professional man in the community, but rather the man who is honest with his patients, open and above-board in all his dealings and kind and generous to his brethren in the work, who loves medicine for humanity's sake, who esteems it a privilege to minister to the sick and afflicted in Christ's name, hoping for something here but expecting infinitely more hereafter. The question of reorganization will come up in the State Society at its next regular meeting in May and this plan suggested by the American Medical Association will be voted on, and it would be a great help to the committee appointed by the State Society to consider the plan if the local society would express its opinion of the scheme, as the local society holds the key to the entire situation. Quite a number of State societies have already gone into the arrangement and have adopted the constitution as recommended.

But to make the plan a success the State Society must have the hearty co-operation of all the local societies. The local societies are asked to adopt the constitution as it stands, but they are allowed to make such changes in the By-Laws as may seem

advisable for the particular locality. It does seem that the Constitution is broad enough for all to stand upon and we can change the By-Laws to suit ourselves. For this reason there can be no excuse for not doing our little part in helping on this great work which means so much to us and to our profession in the years to come.

President's Address Delivered Before the Seaboard Medical Association.

By Dr. Albert Anderson, Wilson, N. C.

Mr. Vice President, Ladies and Gentlemen, and Fellow Members of the Seaboard Medical Association of North Carolina and Virginia:

To-night I greet you cordially and bid you welcome to this, our Seventh Annual Meeting. To be elected your chief presiding officer, by the unanimous vote of your Association, whose membership includes so many honored names of two great States, The Old Dominion and The Old North State, is indeed an honored position, the appreciation of which is beyond my power to express.

Our annual gatherings have always been noted for two things, pleasure and profit. Our last meeting at Norfolk surpassed all others in these two, and in the beginning of my address I wish to acknowledge, on behalf of North Carolina, the cordial and sincere recognition of our minds, hearts, and stomachs of all the good things you so bountifully provided. We cannot hope to equal your pleasures, but trust we shall furnish enough to break the dull monotony of hard work.

I know very little of parliamentary proceedings, and while I am conscious of this, it is no embarrassment, since I am with my friends. You will bear with my inefficiencies, and whenever you find me wrong in presiding over your deliberations, it will be of the head and not of the heart.

To-day we recognize the tendency among medical men to multiply Medical Associations. We hear this tendency criticized often by men whose opinions we value, but this tendency is possibly in the direction of progress—the fraternity of work and good fellowship. We notice that the men, who stand shoulder to shoulder at home, doing work in small county medical societies, the work that broadens and matures a man in books and clinics, sharpens his intellect by mental friction with his confres and deepens his fraternal nature, are the men you must rely upon to do the work in larger medical societies. The following is doubtless true Gospel:

"The field is white unto the harvest, Oh! where are the reapers?"

The plan of every church of my acquaintance is to reach the people through the multiplication of churches. The tendency of multiplying medical societies may be the Providential plan of reaching the doctors to organize them for the stupendous work of wiping from the face of the earth all contagious disease and under the Providence of God, we are hastening to that day. The work of our bacteriologists in the last twenty years have given us sufficient data upon which to wage this warfare, and we have already obtained sufficient results to encourage us to attack and overcome obstacle athwart our pathway. United we speed this day—divided or unorganized we distance that day.

The "Journal of the American Medical Association" informs us that out of 120,000 physicians in the United States, 77,000 are not members of any medical organization; two thirds without the benefit of medical associations. The Journal, giving an analysis of the causes of this condition, says:

"The first rests with those who are not members; these are apathetic and indifferent, ignorant of the practical value of membership. The second is the want of medical societies in many localities. The third rests with medical societies themselves; they are not performing their full functions as organizations representing the medical body politic. As educational or scientific bodies, the majority of them are not conducted for the best interest of their members."

By removing the second and third causes in this analysis, it is possible thereby to remove the first—the apathy, indifference and ignorance of the two third majority.

The most conspicuous example of the genuine product of medical manhood, whose influence and life work are interwoven in the medical literature of North Carolina, was Dr. Charles O'Hagan. The amiability and greatness of his personality were known and appreciated in North Carolina, because of his membership and work in the medical societies of the State. Our long association with him in our society work enables us to verify his possession of those qualities, so beautifully described by North Carolina's foremost orator and statesman:

"Truth was his weapon of assault. Honor his only armor of defence. Justice the law of his life. Rectitude the standard of his conduct. Honesty the only policy he pursued. Charity his daily habit. Love of country and humanity, the sentiments of his heart and duty to all men, duty always

and everywhere the star that guided his ship to a haven, I pray, of 'Eternal Peace.'"

Out side of the ministry, it is the greatest thing in the realm of work to be a good doctor. Who is he? A gentleman who answers to the above description. As much a hero as he who falls in the front of a battle; candid in all matters involving principle, courageous to strike pestilence where it walketh in darkness: sufficiently plucky to speak the truth to his own hurt and stand by it, and a man who seeketh to know the truth continually. We have them in our ranks in North Carolina and Virginia, living along the Seaboard, going up and down the country, seeking to save those in the peril and grasp of disease and those who are threatened. It is the latter—to save the threatened—that is his greatest work. Public health is his ideal. He works for it as if it brought him money instead of poverty, blessings instead of cursings, peace of mind instead of mental worry. "Disease Prevention" is the watch word passed along down the line of the sentinels standing on guard in defense of health.

This defence has to its credit the longevity of the human race "from eighteen and twenty years in the 16th century; at the close of the 18th, it was over thirty years, while to-day it is over forty years; indeed the span of life has been lengthening since 1880 about six years."

In the last fifteen years I have been trying to find out something of health for my own preservation and that of my clients, and something of disease, that I might compete successfully and financially with the members of the medical profession. During this time our profession has been thrilled with hope that specific remedies would soon be discovered to cure all infectious diseases. When Professor Robert Kock came forward with Tuberculin, a few years ago, we were filled, yea thrilled, with hope that the remedy had at last been discovered that would exterminate the greatest foe of the human race—consumption—in whose grasp and influence to-day are over twelve millions of American people. But it proved only a test of tuberculosis, instead of a cure.

But the fight is on against Tuberculosis waged on different lines, and we are assured by the great master that while the task is most difficult, it is one in which labor is most sure of its reward. This fight is waged through consumptive hospitals of England, legal regulations regarding notifications in Norway and Saxony, the organizations planned by Biggs in New York, Sanatoria and the instruction of the people; these are beginnings which, if carried on, will exterminate this foe of mankind.

"It is in the power of man to cause all parasitic disease to disappear from the world."—Pasteur.

Any disease which is caused by a germ is infectious and preventable, and any disease having a specific remedy is preventable. Vaccine Virue and Antitoxine, diphtheria and other serums are two specific lines of treatment about which the laity have heard much from the profession, both pro and con. Any criticism of these two classes of preventive remedies comes from professional ignorance, and are given to the public by malicious men who know better. The majority of our doctors are sufficiently informed to know that the above quotation from Pasteur is a scientific truth, and the question arises, if these diseases are preventable, why are they not prevented? Because scientific facts, discovered long ago, and which have been and are known to the profession, I may say, almost universally, are not utilized in a way that makes us workmen worthy of our noble profession. To illustrate—A case of diphtheria appearing first in a community is mistaken in diagnosis and called ordinary sore throat. This mistake may lead to many infections, costing what? Money that goes into the pockets of druggists, nurses and doctors may be multiplied many fold, but this is the least damaging feature of the horrible ones that follow in the losses of anxious work all day and through the weary hours of the night, and the grief that furrows the brow and whitens the locks on the approach of the great cost and lost that over shadows all the rest—*Death*. Let us emphasize this—the greatest, first and most important step in "Disease Prevention" is *prompt and correct diagnosis*. The best class of doctors ought to know more than they do, but we cannot yet reasonably expect all to make a correct and prompt diagnosis among the best; hence the importance of equipping our Health Boards, State and County, with men competent to verify or not a diagnosis that means so much to the people.

Right here I wish to inform our Virginia brethren that we, the North Carolina part of this association, can felicitate ourselves and congratulate our State Board for having an expert State Bacteriologist, well equipped, I am informed, to clearify our doubts and lead the way to correct diagnosis. Our people are becoming interested, in a passive way, I am sorry to say, in the work of our State and County Boards of Health, but we believe this passivity will be displaced by activity in the next decade, and these boards will be composed of the best and most skillful men of our profes

sion for this peculiar work. Then we can consider them our generals and lieutenants, watchmen upon the tower of public health to warn us of the approach of the night, of pestilence and contagious disease, and when the order is given from the commanding general, President of the State Board, it should be carried down the ranks of subordinate officers and privates with unanimity and loyalty, and this united action will stamp contagion from the face of the earth and thus fulfil the Pasteur declaration:

"It is in the power of man to cause all parasitic disease to disappear from the world."

Our present secretary of the State Board of Health is paid for a certain amount of work. In this case I happen to know that North Carolina gets a good deal more work than she pays for. But our State is not getting what she needs; she needs all the time and all the consecrated ability of a Richard H. Lewis, as generalissimo of this great work, and such service would be incalculable. All know him to be fit for and worthy of his sanitary work, but there are questionable grounds of the fitness and loyalty of his subordinate officers, and of us, the rank and file. Why is this so! Because the people—the public—do not know the value of public health, the immense importance of preventing diseases that are preventable. When they come to know this, our Legislature will give us laws, which will empower State and Health authorities to employ ability to do the work successfully. What would the ability, the power, to keep out of our county, chickenpox, measles, whooping cough, diphtheria, scarlet fever, tuberculosis, pneumonia, malaria, influenza, typhoid fever, be worth to the county annually? A tremendous problem that I cannot solve to-night.

"Matters of this kind should never be left to the family nor to the attending physician, for even members of the profession often entertain widely opposing opinions on the subject of diagnosis, quarantine, and infection, but the principles which ought to be carried out, apart from being a matter of conscience, *should be accepted in a practical sense and embodied in effective laws.*" I quote the following from good authority:

"There were probably no fewer than thirty-five thousand deaths caused by typhoid fever alone throughout the United States in 1900, and, based upon an essential mortality of ten percent, it is within reason to assume a yearly prevalence of three hundred and fifty thousand cases of this disease. The average duration of a case of typhoid fever is not less than thirty days. If we calculate that an average of one dollar a day is expended for care, treatment and loss of work, and that the value of a man's life is five thousand dollars, we have a total loss in the United States of $185,500,000 per annum, from one of the so-called preventable diseases. Reduce the prevalence of this single disease one-half, which has been accomplished in England, and the oft recurring question, 'How is it that our fathers got along without these so-called modern improvements,' will be satisfactorily answered from an economic point of view."

Twenty years ago the germ of consumption was discovered, but it was more than 12 years afterwards before any legal notice was given to this germ, and that honor belongs to Asheville, N. C., in the ordinance passed by that town in 1894, prohibiting spitting on the sidewalks. To-day more than 4-5 of the cities of the United States have a similar ordinance prohibiting spitting on floors of public buildings, and street cars. This step has been taken wisely and almost universally, because this germ is in the sputa, and is the sole cause of consumption. No man or woman is born tubercular, and if tuberculosis comes, it comes through this germ after birth. It is possible to prevent every case. What a tremendous responsibility upon our profession then, when we consider that two hundred and forty-six thousand people in America are passing into their graves annually from this disease. After looking into the statistics bearing upon this disease, I am surprised at our indifference at its fearful ravages and at the inability of so many to find this germ with the microscope with its peculiar staining properties, making it the easiest problem in microscopical work.

We have only a few preventive remedies. Vaccine virus and antitoxine diphtheria, the two most prominent, but these two, if we had no other results from our bacteriological laboratories in the last century, are worth a thousand fold more than the cost of labor it took to find them. The virus of Jener, when it takes successfully, carries a feeling of inexpressible comfort when you find yourself face to face with small pox, and fifteen hundred units of diphtheria antitoxine hypodermically administered gives the doctor and nurse assurance and ease of mind when taking charge of a malignant case of diphtheria. The ways of conveying the germs of disease and the ways they enter the body should be taught the people, line upon line, precept upon precept, here a little, and there a little. If this was done universally, persistently and intelligently by the profession, longevity would go forward with a bound and octogenarians, nonogenarians

and centenarians would be found thick among people, and the vigor of manhood would manifest itself in looks and work and prosperity.

Then to be a disciple of Esculapius, in the highest and broadest sense, a doctor has all he can do on the intensive plan, all the time at work and study of many sciences—physiology, chemistry, physics, meteorology, pathology, epidemiology and bacteriology,—to preserve the health and life of his patients and community. We can say to-night in truth, without boasting, that we are ahead of all other professions—

"Progress has crowned our past; let us not retrograde.
Let our conduct raise no blush on the cheek of posterity.

Let us hand in hand with heart and mind join in promoting the welfare of American medicine until she has reached the grandest pinnacle in the world of science, until she has become the fountain head of knowledge for the benefit of mankind. Then at last when we are called upon to pass through the portals beyond, Minerva Medica, in her sweeping robes of state, will proudly but reverently present us to the Supreme Healer of the Universe, as type of the true Physician."

The Significance and Treatment of Cough.

By William F. Milroy, M. D., President Medical Department University of Nebraska.

A cough is a sudden and forcible expulsion of air from the lungs. It is always the result of reflex nervous excitement, so that the designation of certain coughs as "reflex," in contradistinction to others is a misnomer. It is nevertheless true that in certain cases a cough may depend upon some condition quite remote from the respiratory tract and may properly be called extra-respiratory. The most common examples of this are seen in the so called "stomach cough," the hysterical cough, or the cough due to pressure from a thoracic aneurism or a new growth in the mediastinum. I observed a typical case of the latter variety about a year ago. A man about 60 years of age applied for treatment at the out-door clinic of the College of Medicine of the University of Nebraska. His only complaint was that he suffered from an almost constant, dry cough which had existed for several months and was increasing in severity. The most careful physical examination failed to disclose any satisfactory cause for the trouble. Nerve pressure was suggested as a possible cause and the diagnosis was later confirmed by the development of pressure upon the œsophagus which ultimately caused the death of the patient by starvation. A malignant growth in the posterior mediastinum was the cause of the mischief.

It ought to be mentioned in passing that a pharyngitis is usually the real cause of the "stomach cough."

Probably a disorder at some point in the respiratory tract is the cause of the cough in 95 per cent. of the cases. The irritation may be in the nasal cavity, the pharynx, the larynx, the trachea or the lungs themselves. The recognition of the precise significance of a cough is, by no means always a simple matter, and yet it is of great importance.

A cough is said to be dry or loose according as to whether it is accompanied by expectoration. The somewhat rare cases of extra-respiratory cough, already referred to, are dry. In this category, too, are found the cases of cough which represent the early stage of inflammatory processes, as bronchitis, pneumonia, or phthisis; also most of the cases of disorder of the upper air passages. It is impossible to discuss in this short paper the etiological significance of the various cases of dry cough. One of these, however, must not be passed over unnoticed as its importance should be emphasized on every occasion. I refer to the initial cough of pulmonary tuberculosis. A persistent dry, hacking cough for which no adequate cause is able to be discovered should always excite suspicion of this disease. The diagnosis must be made, partly by exclusion, partly by the physical signs which are probably but ill-defined, and largely by the general symptoms. These favoring phthisis, a persistent elevation of the temperature to 99.5 deg. F. or over will establish the presence of the disease, or, at least, so strong a probability of its presence that treatment should be instituted without delay. In the absence of fever, under these circumstances, the tuberculin test should be employed. The reason the dry cough is of so great importance in these cases is that it will very likely be the symptom which causes the patient to seek advice from his physician.

A loose cough is often paroxysmal and with each attack a certain amount of material, the character of which varies greatly, is expectorated. This variety of cough is a sympton of the later period of the various inflammations of the lungs, asthma and whooping cough. The source of the material expectorated is the disordered secretion of the diseased mucous membrane, more or less altered during its sojourn in the bronchi, transuded serum in œdema, or else it comes from an ulcerated surface or broken down tissue of the lung.

A cough may possess a positive value in

that it serves as a red flag to warn against danger. It is in many cases of inestimable value in evacuating the bronchi and getting rid of the foreign material as it accumulates. The ability of the lungs to take care of an exudate, without expelling it via the trachea, is in certain cases astonishing. The facility with which this is accomplished is modified both by the character of the exudate and the condition of the space which contains it. One is sometimes amazed to find with what rapidity the evidences of consolidation are disappearing after pneumonia, without any expectoration whatever. In all cases of resolution after this disease but a very insignificant portion of the exudate is expectorated. This facility of absorption in pneumonia suggests the possible extent to which absorption and systemic infection may go in those cases in which septic matter is present in lung cavities, alvaoli or bronchial tubes. It also suggests an important indication for treatment, viz: the necessity for employing such agencies as may be at our disposal for evacuating the infective matter. It is possible for a person to literally drown in his own secretions, as in a case I once witnessed during my interneship in the New York Maternity Hospital—a woman, comatose in puerpural ecclampsia who was given one-eighth grain of pilocarpine. She was finally saved by being suspended head downward so that streams of mucus ran from her bronchi and permitted respiration to continue. So also by failure to evacuate a very abundant muco-purulent secretion a similar state of things may result. Suppression of a cough, weakness, collapse or approaching unconsciousness in such a case is a bad sign. In any case. in which much material is forming that ought to be eliminated it is evidently an error to give remedies which may suppress the cough. This does not mean that it is wrong to render expectoration easy or to relieve unnecessary irritation.

Without more extended discussion of the nature and varieties of cough, I desire to briefly consider its treatment. The general therapeutic principle, that the first indication is to locate the cause and if possible to remove it, is well applied here. While we admit that a cough is only a symptom we must recognize the fact that it is often one so great importance as to demand treatment as a disease per se, and many times our skill is severely taxed to bring it under control.

Under date of October 22, 1902, Dr. Walter S. Graham, of Miami, Fla., publishes his ideas of the treatment of pulmonary tuberculosis. The doctor's words are of particular force and interest since himself a victim of the disease, his article is, for the most part, based upon personal experience both as physician and patient. "It is the cough that kills," he says, and he censures physicians for not giving sufficient heed to their phthisical patients as they plead for deliverance from their murderous cough. "Most consumptives die before they learn how to cough," is another of his assertions and he insists that they should be taught when and how to cough.

Among the members of our profession, in America, who have exerted a mighty influence for the reduction of therapeutics to a scientific basis and especially for the correction of therapeutic abuses was the late Dr. Oliver Wendell Holmes. Dr. Holmes is known to the world at large as a poet, a humorist, a philosopher. I for one am not willing that his work as a student and practitioner of medicine should be forgotten. Perhaps his most notable accomplishment was his victorious fight for the establishment of the doctrine, first promulgated by him, of the contagiousness of puerpural fever. He said he was satisfied to have lived if he never accomplished any other good in the world but this.

In his warfare against the practice of over-drugging of patients he no doubt some times said more than he really meant in order to produce the greater effect. He was a thorough believer in the value of drugs. That absurd fallacy, Homœopathy, never suffered a more humiliating exposure than it received from his judicial arguments, his biting sarcasm, and his humorous ridicule. And yet the following sentences I quote from his pen: "Presumptions are of vast importance in medicine as in law. A man is presumed innocent until he is proved guilty. A medicine that is a noxious agent like a blister, a seton, an emetic or a cathartic, should always be presumed to be hurtful. It always is *directly* hurtful; it may some times be indirectly beneficial. If the presumption were established and diseases always assumed to be the innocent victim of circumstance and not punishable by medicines, that is noxious or poisonous, until the contrary was shown, we should not so frequently hear that remark commonly, perhaps erroneously, attributed to Sir Astly Cooper, but often repeated by sensible persons, that, on the whole, more harm than good is done by medicines. Throw out opium, which the Creater himself seems to prescribe, for we often see the scarlet poppy growing in the corn fields as if it were foreseen that wherever there is hunger to be fed there must also be pain to be soothed; throw out a few specifics which our art has discovered; throw out wine, which is a food and the vapors which pro-

duce the miracle of anæsthesia, and I firmly believe that if the whole materia medica *as now used* could be sunk to the bottom of the sea, it would be all the better for mankind—and all the worse for the fishes."

I have introduced these remarks of Dr. Holmes as, when somewhat modified, expressing my feelings concerning the use of drugs in coughs. At the beginning of my professional career, as an interne in the New York City Hospital (then known as Charity Hospital) I was brought in contact with a great number of cases of consumption. These were continually doped, literally *ad nausiam*, with such drugs as opium, antimony, the salts of ammonium, ipecacuana, squill, etc. The result was an arrest both of secretion of the digestive fluids and elimination of waste products. A clean tongue and a hearty appetite were impossible. To be sure, the score of years that has elapsed since that time has greatly altered our idea of the correct management of these cases, but even now there exists the same practice in altogether too great a degree. It is folly to deny that even under the most thoroughly established sanitary, out-of-door treatment and in other cases where this approved method is unable to be put into effect, cough medicines are necessary. As to which shall be used I can not speak in detail, but would urge the omission, as far as possible, of such as destroy appetite and derange the excretory functions. It has always seemed to me that the greatest victory would be the discovery of a real substitute in cough mixtures for Opium. It appeared for a number of years that codeine approached, as near as it would be possible to do, to this end. For some time, however, we have been able to do better than this. The derivative of morphine, heroin, has seemed to me from a rather extensive use of it, to leave nothing to be derived in the way of a bronchial sedative, capable of overcoming excessive irritation without any delaterious effect whatever, so far as I have been able to discover. One other agent that the conditions demand in an ideal cough mixture is some thing capable of increasing bronchial secretion without at the same time disturbing the stomach, causing depression or in other way doing harm. We come, in my judgement, the nearest to this agent that the materia medica permits to-day, in the derivative of turpentine terpin hydrate. A combination of these two remedies has given me the utmost satisfaction in coughs found in a wide range of conditions. My favorite preparation is one prepared by John B. Foster & Bro., of Newark, N. J., and placed in market for prescription use only under the name "Terp-Heroin." It contains in each drachm terpin hydrate two grains and heroin $\frac{1}{24}$ grain. The preparation is palatable and without doubt reliable as my experience with it has shown.

It would be a pleasure to me to detail a number of cases though I have not pretended to keep histories of the cases in which I have prescribed "Terp-Heroin." As illustrative I might allude to a case of a lady, greatly debilitated by a prolonged illness, who suffered an attack of la grippe attended by a most harrassing cough. This was relieved, the broken sleep restored, and the dry character of the cough removed in the most satisfactory manner. Another case was that of a young man whom I saw about two weeks ago in consultation. An unrecognized pleurisy had existed for 6 or 8 months and phthisis had developed, as usual, in the sound lung. There were no active symptoms but a most annoying cough with very little expectoration was present. The preparation referred to gave immediate relief, and I know of no reason why it may not be used indefinitely without harm. Another case was that of a patient, in my clinic, at the Douglas County Hospital this morning. He had been taking "Terp-Heroin" for only a few days to relieve the cough of chronic pulmonary tuberculosis. He said it was the best cough medicine he ever had, that he only had to cough a little and then the sputum came right up. Still another instance of its satisfactory use was that of a lady in my private practice whose social engagements made it imperative (in her opinion) that she should go out regardless of cold, stormy weather and a very bad cold indeed. She did go but to my surprise improved rapidly under Terp-Heroin.

And so I might continue, but enough has been said. In my judgement that physician is not doing his duty by himself or his patient who to-day administers the same old disgusting and harmful drugs, for the relief of coughs, that necessity or ignorance made unavoidable a quarter of a century ago.

Posture and Manipulation in Rectifying Uterine Misplacements.

By Charles E. Whilluck, M. D., Pillsford, Mich.

I think the value of positional treatment in these cases cannot be overestimated—remembering the rule which prevails in surgery for reducing dislocations; "to consider what course the head of the bone has taken to reach its present situation, and make it return as nearly as possible by the same track." So, if by position, we directly antagonize a misplacement of the uterus we certainly gain all the advantage

that may be obtained in overcoming it, and if it is possible we shall sooner or later succeed.

From observing that all displacements are more or less complicated with prolapsus, I was led to adopt a procedure which I do not recollect of having seen given by any author.

It may not be new to all who read this but with a probability that it might be to some, I will describe it, and if it will render the service to others that it has me in the management of difficult, intractable cases the time will not be misspent.

Have the patient sit down on the right hip on a bed or the floor with the nates close to the wall. Have her extend her right hand and elbow a little to crowd close to the wall. Then without slipping away bring the elbow close to the side and lie down on her right hip and shoulder, with the head straight out from the wall. Next let her turn on her back and put her feet up against the wall, then by bending her knees and raising them a little—the soles of the feet against the wall she can stand almost perpendicularly upon her shoulders.

After remaining a minute or so in this position, she should turn the feet again down toward the right, and slide around with the left shoulder to the wall (still lying on the back), and rising perpendicularly, to the sitting, and then to the standing position.

I have attached importance to the matter of getting up perpendicularly, as the uterus then, is not likely to be displaced towards one side, which might be the case if there was a tendency in that direction.

The clothing should be entirely free and loose about the waist. The only difficulty is to avoid slipping away from the wall and so bringing the abdomen in the line of an inclined plane instead of the perpendicular which constitutes the main advantage, as it brings the parts in almost exactly the reverse relation of what they are while standing on the feet, which nearly all women are obliged to do almost constantly.

It has seemed to me, that in the majority of average cases of disease of the uterus, that the malposition was often the source of the most of the suffering and inconvenience to the patient, as well as an impediment to any means used to restore the organ itself, to a healthy condition; and so realizing the importance of measures to overcome any displacement, I have made use of the means described.

Paul Munde says: "The replacement of a dislocated uterus is in itself a valuable method of gradual cure, by restoring tone to the ligaments, and to the vagina the proper shape for a supporter."

Pernicious Malarial Fevers.*

By W. C. Graves, M, D., Professor Anatomy and Operative Surgery "All Saints Training School for Nurses," South McAlister, I. T. Consulting Surgeon C. O. & G. R. R.

Mr. Chairman and Gentlemen of the Indian Territory Medical Association:

My excuse for attempting to write a paper on the subject of "Pernicious Malarial Fevers," is that the chairman of the medical section, Dr. Fulton, assigned me the subject and not being brave enough to refuse the Doctor, I had to accept gracefully. Had I known the true extent of the subject, and the vastness of the literature necessary to go over in order to become a little more conversant with this dread malady, I expect this meeting of the Association would not have been bored, with this rambling and disjointed attempt of a paper. As I have attempted it however, let all the spleen you give vent to, fall on the head of the guilty party—Dr. Fulton—for I can prove at least that he is "accessory before the fact" and as guilty as I.

Pernicious Malarial Fevers are not unrare in our clime, and doubtless have been met with by all the members of this association. When during the course of an Intermittent or Estiva-autumnal fever a symptom of very grave import arises, which dominates over all other symptoms, and from which comes the danger to life, the infection is called complicated pernicious fever.

Pernicious fevers in this country appear usually in the late summer and fall. They are seldom seen in winter except in relapses. The pure form of pernicious fevers are usually preceded by other attacks, which have been mistakenly treated, or not treated at all. They are generally of more than ordinary severity, as evidenced by headache, vomiting, icterous distress, prostration, ect. The cases in which the pernicious attack develops as such without preceding attacks are said to be due to complications, such as sunstroke, etc. They may, however, only be preceded by one or two attacks. They are most frequent in recent infections.

The duration of the pernicious attack may be brief or protracted; when brief it is about the length of the typical Quotidian or Tertian attack; when protracted it may last two or three days, or even longer with a continuous fever of a remittent character.

In Intermittent Pernicious Fever, if promptly and efficiently treated there is usually only one attack; otherwise

* Read before the Indian Territory Medical Association at Muskogee, I. T.

there will be a second, which generally calls in the undertaker, very exceptionally there is a third, which unless heroically treated is *always* fatal.

The pernicious symptoms may appear either at the outset, or during the course of an attack. After the crisis, this symptom may disappear, or be much attenuated, but will be found ever ready to return even with increased severity at the next attack. These pernicious symptoms may occur after premonitory symptoms, or may appear with brutal abruptness. Bignami says "it is usually the latter in old people or in persons suffering with diseases of the circulation." The coma may come on suddenly aud be followed in a few hours by death. Death in these cases is generally preceded by a black vomit.

The Complicated Pernicious Fevers are divided by Marchiafava and Bignami, in their excellent and exhaustive work on Malaria in the "Twentieth Century Practice of Medicine," into several varieties which they name according to their predominating symptoms; comatose, delirious, tetanic, hemiphlegic, choleraic, algid, dysenteric, hæmorrhagic, etc. We will not dwell on these different forms, as their name will suggest to us the predominating symptom we would expect to find in each. The comatose variety is the one I have most frequently met with. In it the predominating symptoms is coma, which is usually profound and into which the patient usually falls after impaired memory, somnolence, prostration, severe headache, stupor or delirium. The pupils are usually coutracted, respiration slow or irregular and interrupted by pauses. In the beginning the pulse is usually slow, hard and full, becoming more rapid and feeble near the termination. Here we usually have a dilatation of the right heart.

The coma may last only a few hours or several days, and either resolves or ends in death. This coma may be followed by delirium which may be quiet, of the low muttering typhoid character, or of such fierceness that it causes the patient to try to get out of bed and run away, and necessitates continuous watching. I recall one case in which this was the case. The patient got away from his nurse and got out of the yard before he was caught. This patient also had a severe jaundice the day before he died, which instead of being the bronze color we so frequently have in the hæmorrhagic form, was a bright golden color and I believe is due to the dying of the red blood corpuscles en masse. I have yet to see the first recovery in one of these cases which is followed by this jaundiced condition and yet I can find no authority who even mentions it as a complication.

Causes of Pernicious Malaria.

The parasitic data in pernicious infections are first the presence of Estivo-autumnal parasites and second their abundance. "Every one is agreed as to the first, and yet not all fevers produced by them are pernicious, nor even grave; some are mild and some resolve spontaneously."

As to the second Bignami in his work on the pathological anatomy ot pernicious fevers, has called special attention to the fact "that contradistinctions found so often during life between the number of parasites and the gravity of the disease, and also the degree of anaemia in the majority of cases, disappears when the autopsy allows of an examination of all the organs." He claims and with Bastienelly has shown that, if the blood from the vessels of the various organs, as well as the finger blood be examined, the number of the parasites found are always great. They may be found in the spleen, the liver, the capillaries of the brain and the mucous membrane of the intestines.

It is also observed that people who have lived but a short time in a malarial climate are more subject to grave pernicious fevers, than those native to the climate, or even suffering from chronic malaria. Colin states that "children most frequently have the eclamptic form, and old people the paralitic form." Arterio-sclerosis, interstitial nephritis heart lesion, alcoholism, overwork, insufficient nourishment, etc., are all factors in the gravity of the disease. We can easily understand why, when we bear in mind the dilatation of the heart, which occurs during pernicious fevers.

Diagnosis.

Pernicious malarial fevers are easily diagnosed if we can get a history of a more or less prolonged Estivo-autumal Tertian or Quotidian attack, when at the onset of one of these attacks, the pernicious symptoms come abruptly after the febrile invasion. The rapid disappearance of these symptoms with the cessation of the fever would confirm the diagnosis. In the non-febrile pernicious fevers it is however often very difficult to make, and the microscope here comes into play for its full worth.

The examination of the blood requires some skill, but when once the necessary skill is acquired, and the examination is patiently and carefully performed, will usually permit of the diagnosis of estivo-autumnal fever very readily.

The parasite is recognized by the abundant amount of pigment present, the con-

spicuous crescent forms and the flagillated forms. The small non-pigmented, motile or annular amaoba, which experts find in such abundance require more skill, and I might add more imagination than I have yet attained, to see and demonstrate. I have frequently had them pointed out to me but have been too dull or too blind, to imagine I could make them out. The microscope, however should be resorted to as an aid in diagnosing not only this, but all masked forms of malaria.

Treatment.

It is needless to say that calomel should be given in heroic doses in most cases of pernicious malaria, of whatever variety it may be. Neither will I dwell on heart stimulants, if we will bear in mind the weakened condition of that organ caused by the dilatation of the right heart we will always use every effort to keep it going.

The remedy par-excellence in the treatment of pernicious forms of fever, is, as in other forms of malaria, quinine. By this I do not mean gr. v every two hours, or gr. x every three or four hours, but a *real* dose of the alkaloid. If warning of a pernicious attack is in evidence, give at once thirty grains hypodermically. Follow this initial dose in six or eight hours with fifteen grains, or less if less is required. This may be given by the mouth if the stomach is in condition to bear it, but if not I feel no hesitancy in repeating it subcutaneously.

On the sixth day for several weeks following one twenty-grain dose should be given by the mouth. This is far better than small doses given daily, as one large dose given near the expected return will arrest the development of the parasitic cycle which is preparing to bring about another attack. The hydrochlorate of quinine is the best to administer by hypodermic: it is more soluble and contains a greater percent of quinine.

It can be dissolved in sterilized distilled water and makes a perfectly clear and safe solution. Baccelli has recently suggested the intravenous injection of quinine when prompt and energetic treatment is necessary. His prescription is Hidrochlorate of Quinine fifteen grains Sodium Chloride twelve grains and distilled sterilized water three drachms.

While I have never used this I should feel no hesitancy in doing so should the occasion require it. In conclusion I wish especially to bring out two points, and on these two points I feel that too much stress cannot be laid.

They are first, the use of the Microscope in the proper diagnosing the case. This, as I have said will be only really necessary in the masked cases, but it will be good to back up the diagnosis in all cases; and second the administration of quinine by the proper method, the hypodermic and in the proper dose. If I succeed in impressing these two facts I feel that I have done well.

Carcinoma Uteri.*

By H. C. Crowell, M. D., Kansas City, Mo.

So much has been written on this subject that we have sometimes found ourselves in doubt as to the proper course of treatment to adopt. Some say operate while yet there is life or well nigh so. Others seldom advise an operation. Doubtless the advice of each is founded upon what seem to them tenable promises. Not long since a gentlemen claimed that operators and non-operators were divided by geographical lines. Those in the East being non-operators and those in the Mississippi Valley being the operators. By a jugling with a species of statistics which were utterly valueless he undertook to show the mortality was greater where nothing was done than in those operated. I should be disposed to class this statement as rather on the order of what are sometimes termed "pipe dreams." To be more exact the statement was "Surgeons of New York and Philadelphia do not as a rule favor hysterectomy for cancer of the uterus—believing that when the disease is advanced far enough to be recognized it is too late for a radical cure." Those of the Mississippi Valley operate upon practically every case in which there is a chance of prolonging life for even a brief period. "Vital statistics show the different results." Then tables are presented with an array of physicians names with a number of cases operated upon for cancer known to be alive after five years. Being one among the number quoted I claim the right to show the worthlessness of such statistics in proof of the claims of the author. Those reporting do not report the stage of disease when case was operated on. Not all cases seem to have been proven by microscopic examination an essential fact to be known, though doubtless it may have been used in a very large per cent. of the cases. "By advanced far enough to be recognized" I assume that the author means when he says "sufficiently advanced" that the microscope is not required to make a diagnosis? One easily recognized by touch, I assume that sufficient data is at hand to prove that the Eastern surgeon is eminently correct in his premises when he declines to operate except in those of very early beginning—and

* Read before the Western Surgical and Gynecological Association, at St. Joseph, Mo.

I have no doubt the entire list of Mississippi Valley surgeons quoted are familiar with such data and are acting in the same conservative manner of the Eastern surgeon therefore we see the utter uselessness of these statistics as they are probably early cases reported to be alive after five years. In short we desire to pay the Mississippi Valley, surgeons, quoted, a greater compliment than did the author. We believe them to be familiar with the result in late operations; and as being familiar with the necessity of early diagnosis and the reasons why if an operation is not done very early it is universally a failure so far as saving life is concerned. Such we believe is the teaching of every Western Medical College.

As old as is medicine and then some is cancer. With these many years of investigation and treatment it would seem that we should be in accord in regard to a quite universal treatment until something better than is now known shall be proven. Many caustics and local applications have been tried but so little success has attended their use that they do not engage the attentions of surgeons or many physicians. The Alexander treatment a system held secret is reported to benefit but so little is it used we are led to believe it will prove no more than possibly palliative. A remedy which shall positively cure a single case will leap forth into popularity hard to dethrone so eager are the laity and profession to secure a cure if possible without the knife.

With the lessening of hysterectomy for cancer on the part of some, there are a few who would be even more radical and not only remove the diseased uterus but all adjacent glands and parametria. So radical and difficult is such an operation that the average operator will not aspire to undertake it, indeed up to date I am not disposed to see advantage enough in it to recommend it save as a fine surgical exercise, as not all of the glands can be removed by the utmost painstaking.

Let us turn briefly to some of the reasons why only early operations in cancer of the cervix in particular should be done.

Carcinoma is considered by all to spread to adjacent tissues through the lymphatics that being so, in order that there may be a concensus of opinion as to the proper procedures and at what stage it may be esteemed as likely to prove successful we must agree upon one point yet in dispute, viz: Does C. invade the lymphatics early or late? If early then the operation must be correspondingly early, if late longer delay may not prohibit operation. In regard to this proposition there seems to be a difference of opinions. Investigation seems to show there is also a difference in cases and also in the manner of invasion some being per continuatatem others persaltem. Those who attempt removal of the glands and parametria admit that many are overworked and some are inaccessible hence it is performing a very hazardous operation for little benefit if any. Failing to embrace these ultra radical operations does not imply that we would not take as much of the vagina and out as far as possible on the broad ligament to such point as would seem to be within the bounds of safety in doing an ordinary hysterectomy. After this brief review of the subject (but in part, it is true) but along the lines of latest recommendation by some let us reflect and go over our individual experience and decide what shall be our practice. Personally I have sifted down to this, unless very early discovered, nothing is gained by hysterectomy for carcinoma of the cervix. Later operations may avail in carcinoma of the body of the uterus. Diagnosis to be confirmed by the microscope in the hands of a competent pathologist and I say this advisedly for one but poorly equipped is a dangerous advisor. The uterus must be freely movable, capable of being dragged down to the vulva. If not it is quite probable that the disease has involved the utero sacral ligaments and adjacent tissue making an operation of doubtful utility. If the disease is clearly made out by touch, appearance and clinical history it is rarely possible to secure a radical cure by hysterectomy if we do not accelerate the fatal termination. In those cases well defined my individual experience leads me to believe that more days or months as the case may be are added to the life of the patient than by any attempt at extirpation by cutting or scraping away the necrotic down to solid tissue burning that surface with the themocautery and treating subsequently by touching the surface occasionally with 4% foraldhyde. By this treatment we retard the disintegration check the hemorrhage and discharges enabling the patient to recuperate sometimes in a remarkable degree. The suffering is lessened and she is relieved of the shock and dangers attending more radical procedures. Time has prevented me from presenting as exhaustive a paper as might be desired.

I trust however, these plain every day experiences may serve to bring us together as to the best ground to stand upon with these poor unfortunates. The best advice which I would urge would be more frequent early examination of all parous women who should be advised of the expediency of such examinations as a routine safeguard after the age of thirty-six.

11th and Walnut streets.

Interesting Cases in Kidney Surgery with Remarks.*

By R. L. Payne, M. D., Ex-Prest. North Carolina Medical Society, Surgeon St. Vincent's Hospital, Norfolk, Va.

Case No. 1. Stone in Kidney, Unusual Symptoms.

John M., age 29, married and a farmer by occupation; was sent to me from Martin County, N. C., with the following history:

About four years ago he had experienced a severe attack of kidney colic, with all the classical symptoms, including haematuria. Since this time he has suffered no attack of nephritic colic, but has at frequent intervals, suffered with intense pain in the left loin. This pain recurred at irregular intervals; was often so severe that the patient would fall in his tracks and writhe with agony, and on sevefal occasions there was syncope.

The pain was always (after the first attack) confined to the left loin, with no pain radiating along the ureter into the groin or testicle and there was no increased frequency of micturition. The patient's features bore the impress of great suffering, and he had lost forty or fifty pounds in weight.

The temperature and pulse were normal, the digestive organs in good condition, and careful physical examination of each organ revealed no trouble except on deep pressure with the end of the finger in the left lumbar triangle, pain and soreness were felt. The urine was over-abundant in quantity and comparatively free from sediment, but careful microscopical examinations made at intervals of a few days, revealed the constant presence of a few pus cells and red-blood corpuscles.

A diagnosis of renal calculus was made, but the patient was submitted to a careful X-ray examination with negative result. His symptoms, however, were urgent, and believing calculus to be present, it was determined to explore the kidney. The usual lumbar incision was made exposing the left kidney. The organ was carefully separated from its fatty capsule and with some difficulty brought down from under the ribs and into tho wounds. Catching the organ between the fingers and thumb and palpating carefully a hard body was felt in the upper part of the pelvis. The kidney was incised and a finger pushed into the pelvis readily detected a stone fixed in one of the calcyces. This was dislodged and extracted with forceps, and so in turn the two others which I hold in my hand were removed. The aggregate weight of the three stones was 268 grains. All of these calculi were fixed in the calyces.

Having determined the patency of the ureter with a delicate probe, a gauze drain was inserted into the pelvis of the kidney, and the rather free hemorrhage controlled by deep and superficial sutures of catgut. The organ was returned to its bed, the fatty capsule carefully adjusted and the wound in the loin closed with sutures except where the drain emerged.

There was free drainage of bloody urine for eight or ten days but this gradually subsided, and the man made an excellent recovery.

There are several points of interest in connection with the history of this case. You will recall that there had only occurred one attack of typical kidney colic, and that four years previously while in the interim the only symptoms were declining health with occasional paroxysms of intense pain, and more or less constant dull aching in the left loin. You will also note the practical absence of a pyo-nephrosis which is almost a constant accompaniment of long standing cases of renal calculus. The absence of the typical symptoms was no doubt due to the fact that the stones were fixed in the calyces and not moving about in the pelvis of the kidney, at no time became engaged in the mouth of the ureter.

The absence of pyelitis was no doubt due to the same cause, since the stones not moving around, no abrasion of the mucus lining of the pelvis occurred, and hence no infection occurred.

The case also illustrates the importance of frequently repeated microscopical examination of the urine in cases of snspected stone, since the discovery of red blood cells from day to day was strongly confirmatory of the diagnosis. We will also do well to note the negative character of the X-ray examination, even in the presence of such large calculi, but this observation is but confirmatory of the truth already announced by high authority, that a negative X-ray examination does not disprove the existence of renal calculi. If the stone be formed of oxalates it is readily detected by the X-ray; if its composition be of phosphates the shadow will be much less distinct, while in many uric acid calculi the X-ray penetrates so readily as practically to give no shadow at all. Therefore it follows if the X-ray detects a calculus it must add greatly to our satisfaction to obtain such positive proof, but the absence of such proof must not prevent exploration if justified by the clinical symptoms.

The diagnosis in this case was based on fixed, dull pain with occasional exacerbations in the left loin. On tenderness elicited

* Read before Seaboard Med. Society, Wilson, N. C., Dec. 1902.

by deep point pressure in the apex of the lumbar triangle, and on the detection day by day, with the microscope, of red blood cells in the urine.

In the presence of such symptoms it will usually be safe to explore the kidney for stone, especially if there be any, even though fairly remote, history of nephritic colic and this is all the more imperative since it is true that the simple exposure of the kidney through the lumbar incision, and the exploration of the pelvis with a long aseptic needle is an operation fraught with no inherent danger.

In addition I may add that even though no stone be found the most intense nephralgia is constantly relieved by splitting the capsule of the kidney.

Case No. 2. Hæmaturia. due to unusual cause.

Mrs. M— aged 40, mulitparæ, came to me for treatment for hæmaturia. She stated that she had suffered with bloody urine several times within a few years, but that for more than three months now, the hæmaturia had been continous. She was exceedingly anæmic, had lost steadily in flesh and strength, and had suffered much from atonic indigestion.

Apart from the bloody urine there were no symptoms referable to the genito-uniary organs. She sent me a specimen of urine every morning for several days and each day it was very bloody. Careful and repeated microscopic examinations revealed nothing but the presence of red blood cells, no casts being present and the continued hæmaturia made it impossible to determine the presence of albumen due to other cause. There was no evidence of bladder trouble and the blood came always thoroughly mixed with the urine. Careful abdominal examination was made. The left kidney was not palpable. The right kidney was found floating and much enlarged. An examination of the bladder with the cystoscope revealed the mucus membrane healthy and free from new growth. The ureters were catheterized with the result that clear non-albuminous urine was obtained from the left kidney, while that from the right organ was bloody. We were therefore able to say definitely that the blood came from a much enlarged and freely moveable right kidney, but it was impossible to arrive absolutely at a diagnosis of the true pathology. There had been no symptoms of nephritic colic and no loin pain, therefore renal calculus seemed to be out of the question. A one-sided nephritis was possible, but in such cases the hemorrhage is usually intermittent and the presence of casts and albumen when the urine is free from blood make the diagnosis easy. The hemorrhage could be due to the twisting of the pedicle of the floating kidney, but in such cases there is great pain and the twist is either relieved in a short time, the parozysm of pain being relieved and the relief accompanied by an excessive flow of bloody urine or hydronephrosis quickly develops. Careful and repeated microscopic examination failed to disclose the presence of tubercle bacilli, and the absence of pyuria served further to exclude tuberculosis. The enlarged kidney suggested the idea of malignancy, but the absence of pain and the absolutely smooth surface of the kidney lent little color to such a diagnosis.

There was absolutely no pain complained of except the usual dragging sensations increased when the lady was on her feet, which are always present in cases of moveable kidney. The patient was kept under observation for several months during which time all the usual remedies recommended for hæmaturia, including prolonged rest in bed, were tried in vain. The hæmaturia persisted and the anæmia increased. At length I was forced to believe the trouble was malignant. Operation was advised and accepted.

The usual lumbar incision was made and the enlarged organ was pushed up in the wound by an assistant. It was found much enlarged in all its diameters, and deeply congested but with a perfectly smooth contour. An incision was made about an inch long and three-quarter inch deep in the cortex, and a thin section of kidney tissue removed, from which sections were quickly made with a freezing microtome and examined under the microscope by Dr. Grandy, the Pathologist to the Hospital. The examination revealed nothing but congestion of the tissues. The organ was explored carefully by palpation and with a slender needle for stone with negative result, and the conclusion reached by exclusion that the hæmaturia was simply due to the congestion incident to the interference with the circulation by reason of the loop in the vessels due to the very low dropping of the organ. The kidney was sutured to the lumbar fascia, packed around with gauze and the wound closed, except at one point where the gauze packing emerged.

The hæmaturia continued for five or six days unchanged, and then the urine gradually cleared up and the patient slowly but continously improved. The operation was done nearly two years ago. There has been no return of the hæmaturia and the woman is strong and well.

Etiology and Treatment of the Uric Acid Diathesis.

By W. R. Inge Dalton, M. D., President of Amer. Med. Pharm. League, Formerly Asso. Prof. in "New York School of Clin. Med." Consultant Dematologist and Syphilographer to "Metropolitan Hosp. and Disp." Member of American Medical Association, New York State Medical Association, New York County Medical Association, New York County Medical Society, Etc., Etc.

We are still ignorant of the cause of this diathesis, though pathologist now regard it as an entity—a true diathesis. In late researches they take cognizance both of the physical and chemical etiology, and nervous element of the dyserasia.

Weintraub, and Howberscewski were in the van of explorers in the causation of uric acid formation when they ascribed it to being present wherever living matter exists, caused by the dissimilation of albuminoids, and Kossel deserves credit for having examined it through the intermediate stages of nuclein, xanthin, to its final, eomplete formation.

The majority of all foods contain nuclein, it being the chief ingredient of cell-nuclei, as well as a permanent constituent of the body tissues. Uric acid (from the quadurate and, by elaboration, to the bi-urate) may be generated by either the nutrients ingested, as the diathesis may be caused by the metabolism (osmosis) of the body tissues.

I am opposed to the old theory, that it is engendered by the oxidation of albumin—a theory with which I was formerly imbued—and am now inclined to believe that it is induced by a specific metabolism of nuclein, a distinct kind of albumin. The alloxuric bases are closely and chemically related to uric acid, and are, I think, converted into it, for they are certainly excreted in that condition and that the compounds of simple organizations pruduce the molecules which form it. *It is the retention in the tissues, and augmented production which causes the blood to be saturated with uric acid.* We are, fortunately, able to control the formation from the nucleins ingested by food, but those generated by the body tissues we cannot influence to any great extent—we have no means of adequate management—*for the food nucleins always form a definite amount of excretion of the œcid consonant (complementary) with the amount ingested*—in the former we can force the offending substance to be converted into bodies of more soluble, nitrogenous elements, and prevail upon the kidneys, by proper medication, together with a judicious diet, to execute more nitrogen, even if only a small amount is voided, after a meal replete with nucleins.

Here, then, is our clue, our starting point for the rationale of dietary. We must exert every effort to secure the utmost elimination of the dyserasia by a rigid adherence to diet, bear in mind, in treatment, to appreciate the supreme importance of the food nucleins upon this condition, prevent renal insufficiency, obviate granular atrophy of the kidneys, and to diminish the chances (the *inevitable certainty* in some cases), of the formation of the deposits of urates to effect this consummation, treatment should be directed, *ab initio*, to the physiological condition of the chyme and chyle, so that when the chyle passes from the duodenum it be rendered sufficiently alkaline for physiologic metabolism, to prevent organic fermentation processes in the ileum and large intestine, to assist the emulsification while undergoing pancreatic digestion, and to furnish no nidus for the sustenance of the micro-organisms (whether staphylococci or streptococci) which infest and deleteriously affect the whole alimentary tract, so that the pathogenic germs may not be transported, through the lacteals into the vena cava, thence into the circulation, giving rise to septic and putrefactive changes—to gout, rheumatism and to skin diseases generally. I have made an improvement on the tablet which was given to the profession at Atlantic City, at the meeting of the A. M. A., June 8th, 1900, by substituting aloin in place of the naphthalin—so that it now consists of

℞	Aloin		gr. 1-30
	Charcoal		" 1½
	Ipecac		" ½
	Pilocarpine	aa	
	Calomel	aa	
	Strychnia	aa	" 1-100

M. ft.—Tablet—i.

To be obtained from N. Y. Medico-Phar. Supply Ass'n, 236 W. 60th st., N. Y. City.

I generally prescribe two of these daily, and require patients to *religiously* abstain from alcoholic, or malt beverages, to partake of no sweets, whatever, not even permitting sugar in tea or coffee, to eat no red meats (fish and eggs allowed) for four weeks, and usually to drink large quantities of water. By this treatment and dietary, the virulent activity of the pathogenic organism is lessened, and their whole environment altered. At my clinics, and in private, I have treated 11,293 cases, during the past four years, on these lines, with gratifying success, and cordially commend my treatment to my brother practitioners.

Meat is excluded, temporarily, because it contains extractives and nucleins, cell-nuclei, and because they aid the formation

of proteids and phosphorus in the tissues which substances are easily elaborated by oxygen, preventing oxidating nucleins. It is absurd to give meat to favor the deposition of urea, for the purpose of solving uric acid. Eggs are allowed because although they are generously supplied with vitellin, their nuclein contents cannot be subdivided (split-up) into uric acid. I advise the moderate use (if at all) of tea or coffee, because they are made up of members of the class of alloxuric bases, the abromine, theime, adenine, caffeine, etc , facile conversions to uric acid, and because they are carriers of zanthin products. Water is ordered for obvious reasons, principally because it is a uric acid solvent, and if there be no weak heart, no pronounced gouty diathesis, renal insufficiency, or great arterio-sclerosis I enjoin large quantities to be drunk. Alcohol, in all its forms, is positively forbidden, because (apart from Atwater and others, who advocate that it has food properties) it is unequivocally a powerful irritant of the digestive tract, and highly detrimental to the whole circulating system. Vegetables, which contain few nucleins, and a large percentage of salts are permitted, but the bulbous varieties are excluded for the reason that they are composed of a great amount of carbo-hydrates, and a scarcity of proteids, and because they are of little nutritive value compared to their bulk. Dr. J. N. Love (Medical Mirror, Oct. 1902) says "for the gouty and rheumatic that meat be reduced, and to select such vegetables as spinach, etc., which act as stimulants upon the excretory organs, and that starchy foods be used in a very limited way; that digestion be helped by the administration of diastase."

Fruits, of all kinds, are admissible, and urged to be partaken freely of, because of the acid salts of which they are composed, the salts being convertible into carbohydrates, and rendering the urine alkaline.

101 Convent Ave.,
New York City, N. Y.

Iron as a Hæmatic.*

By W. A. Haley, M. D., Durant, I. T.

Thinking that some good may be gained from a review of a few special qualities of an old remedy, I take for my subject, "Iron as a Hæmatic." Hæmatics furnish to the blood elements which are defective in our dietary, in that, they are foods rather than medicines, when given as hæmatic. Iron, though a constituent of the body, is chiefly present in the red blood corpuscles, and only to a limited extent. By its use, we increase the amount of hæmoglobin, upon which the chemical inter-changes conduced by the red blood corpuscles depend, renders its use in anæmia a food rather than a medicine. The cheeks grow rosy, the lips regain their usual color, the eyes brighten, the tongue is less flabby. There is a general increase of body weight, a development of muscle and an increase of nerve force. The entire system is improved. Iron salts in anæmia have important properties other than their influence on corpuscular growth. They give tone to relaxed mucous membranes of the digestive tract, and in this way, tend to restore its functions. It is possible too, that after increasing the quantity of the red blood corpuscles —aids in heat production. Iron preparations are not only useful for their influence on the blood-discs, but for their beneficial influence on the tissues of the body, in that iron is an important curative agent. Large quantities of the soluble astringent preparations should be given when we desire a tonic effect on the mucous membrane of the alimentary canal and the tissues—and is no less effective on the red blood corpuscles, the excess acting as a tonic. Iron given to a healthy person for a long period of time will produce plethia, an excess of red blood corpuscles. When given to the anæmic, it raises the condition of the blood to that of the normal, and after a time, the blood seems to be saturated with it and ceases to assimilate it, though in certain chronic conditions, it may be continued for years with good effect—the point of saturalion not having been reached. Iron is eliminated with the urine and fæces. Iron in all its forms, is useful. Almost all its salts are astringent. They may be divided into the heavy and light salts. The sulphate will represent the former and the citrate and the albuminate would represent the latter. I shall not attempt to enumerate all the preparaof iron, but will speak of them as a class. Each have its special indications. I prefer the lighter salts in the convalescent state and the heavier in conditions where there is an acute pathological condition of the blood, diminishing the number of, and impoverishing the red blood corpuscles. Water from the natural iron springs have a specially good influence on the digestion. The special indications for the administration of iron for its hæmatic effect is debility and anæmia, in that it renews the blood and acts as a general reconstructive agent. The contra-indications for the use of iron are, vascular fullness, plethera, vascular excitementf rapid pulse combined with rise of temperature. Iron is given in erysipelas with high temperature, by good clini-

* Read before the Twenty-Eighth Semi-Annual meeting of the Indian Territory Medical Association, at Muskogee, I. T.

tions and for which they claim good results. In convalescence, when the pulse are fast and small, temperature normal or below, when the skin is cool, the face pale, the tongue clean, then, and not until then, should the administration of iron be begun. If it produces any gastric disturbance, or headache, or feverishness, it should be totally abandoned or the dose much reduced. If the the tongue be red and irritable, bitters with acids given until all intestinal irritability has passed away—of which the condition of the tongue is the index. If the tongue is loaded with fur, bitter and acid tonics with an occasional saline laxative is to be preferred. The preparations of iron are not indicated in the condition known as billiousness and so long as there is a foul tongue, a bad taste in the mouth and fullness of the liver, with disturbance of the alimentary canal, iron is prohibited. Iron is best appropriated by the young, say, over one year of age. The aged do not appropriate iron and really it seems to be a hindrance to the blood making process; consequently, with the old people, it is better to give them tonics with alkalies and easily digestible foods than to give them iron.

Bibliography.—Farthergill and Murrell, Hand Book of Therapeutics; H. C. Wood, Practical Therapeutics; Foster's Practical Therapeutics.

Unnecessary Martyrdom Sometimes Necessary.

By James W. Squires, M. D., Churubusso, Ind.

Every few weeks, we see long articles in some of our medical journals giving pitiful accounts of whole families, so to speak, offering themselves up willing sacrifice, to be literally skinned alive, to furnish skin grafts to replace or repair the cuticle on some unfortunate friend or relative who had suffered an extensive burn or scald, destroying large surfaces of cuticle.

It is a well known fact in our profession that nature will refuse to do all the work of growing good sound skin over extensive wounds of this character, but by the cooperation of patient, family friends and surgeon and the common barnyard fowl, the hen, many of these suffers may be wholly restored, that otherwise would fall victims to physical waste, disease and death. The healing of less extensive cutaneous wounds, from whatever cause, that nature and cleanliness would eventually heal and skin over, may be greatly hastened, and length of suffering thus shortened by the proper application of skin grafts. I have placed skin grafts upon slow healing tegumental wounds of only a couple inches diameter to my own credit and the delight of my patient. I think it best in these small cutaneous wounds to lift the grafts from the patient, who is suffering from the wound. I usually take them from sound skin in close proximity to the sore, thus avoiding making a sore upon some other part of his body; however, the sore thus occasioned by carefully lifting a few skin grafts, seldom occasions much inconvenience and is soon healed. When it is all said and done, the patient well, the arms and legs and backs, etc., of father, mother, sister, brother and the whole neighborhood may be healed. We who have had experience in this kind of surgery, must admit that the lifting of human skin-grafts is unnecessary martyrdom in every known instance except one, that I promise to tell you about before I conclude, as the skin of the frog or the wild fowl or the hen or turkey is just as good, will grow just as well and can be readily procured in every neighborhood and almost every home in the land, in a few moments warning. It requires more care to set them, as they curl worse upon themselves, and more time and pains must be taken by the surgeon to make the raw surfaces of the wound and the graft meet.

Doctors: Here comes the secret unnecessary martyrdom necessary, and the time to manipulate it, you are called to see a patient, the victim of an extensive burn or scald in which it is necessary to resort to skin grafting and the pay-master, the father or husband is financially able to pay you a reasonable fee for your professional service, but is a universally recognized dead-beat, unworthy of confidence, credit or charity. Don't say a word about grafting until you are ready to graft; then don't say a word about chicken skin or any other kind of skin but human skin. Tell him now is the time to do the grafting, it must be done now, then propose and insist that he furnish the grafts. He'll say, he can't, he has the work to do. Here's Jim why wont he do? Tell him you've thought the matter all over, that Jim is not healthy, or his skin is too thin or too thick or too rough or too something else. I insist, and stick to it. This is your first opportunity and if you fail this time, it will certainly be your last, so insist on skinning him now. Your future, with him depends upon it. At this time his heart is soft and tender, tender-hearted you know, and his whole being is filled with sympathy for the little sufferer, or the big one as the case may be; there is something good about all men, and in that condition, and at that unguarded moment he cansents. Prepare him quick, and skin him at once, or he'll back out. Don't give

him time to reconsider. Take ten or fifteen pieces, that will be sufficient to make him appreciate the operation and keep him from forgetting it. Its dollars to marbles he'll pay you before you leave the house, if he has the money; if he has it not, he'll pay you out of the first cash he gets his hands on; he'll pay you if he has to lay awake nights (with a sore arm) and steal the money from his poor old blind mother to do it with.

Nor is that all. He has established a good precedent with you and will ever pay you after that, if you don't give him too much rope. He'll brag on you to every man he sees and send word to the rest. Even though the patient never gets well, he'll say "It was too smart to live long. It was burnt too bad. You were called too late. You did your part and did it well, I can't go back on Dock." He'll do you more good as a traveling advertising medium, than a grind stone organ, and a South American monkey could do a saloon drug-store.

Fatal Acetonaemia Following an Operation for Acute Appendicitis.

G. E. Brewer (Annals of Surgery, Oct. 1902) reports the case of a boy of twelve years. A perforated gangrenous appendix was found in a small abscess cavity containing two drachms of foul pus. Duration of anæsthesia was twenty-five minutes. On the third night after operation he suddenly awoke and began to scream. These attacks were renewed at intervals during the next day. The wound conditions appeared normal, and there was no evidence of cranial nerve palsy or irritation. No cause for the peculiar mental condition could be discovered, but a peculiar sweetish, ethereal odor of the breath was noticed, and a diagnosis was made of acute autointoxication from the presence of acetone and diacetic acid in the blood. This conjecture was confirmed by finding large quantities of both substances in the blood and urine. Free catharsis, diuresis, and intravenous injections of chemically pure sodium bicarbonate were instituted, but the patient died about twenty-four hours later. In the final hours the mental symptoms assumed more of a passive type. The writer has never known of a similar case. Possible causes are trauma, sepsis, drug action, and autointoxication (ptomains, uræmia, and acetonæmia). As regards the possible relation of anæsthesia to the condition, Brewer notes the presence in the urine of a pathological amount of acetone in seven out of thirty-three cases following anæsthesia, the records being taken from his hospital service. In five of these chloroform had been used, and in two ether. None of the cases were diabetic, and in none was there a reaction for acetone before the administration of the anæsthetic. In all the acetone appeared on the day following the operation. In two it was found on the second and third days, in the remaining five on the second. In six of the cases there were no symptoms which could be attributed to acidosis; in the seventh death occurred thirty-six hours after a gastroenterostomy for carcinoma, with rather indefinite symptoms of so-called secondary shock.

Lodgment of a Foreign Body in the Air Passages for Seventy-two Days.

Wilson (The London Lancet, Nov. 22, 1902) reports the case of a man of forty-five years, who, while intoxicated met with the accident referred to in the title of the article. The next morning he presented the following symptoms: Great pain over the lower posterior portion of the right lung, dyspnœa, and severe paroxysmal cough, with the expectoration of much frothy muco-purulent sputum streaked with blood. No bony crepitus could be elicited. His temperature was 100 deg. F., his pulse rate was 84, and his respirations were 24 per minute. There was dulness on percussion over the infrascapular region on the right side, and the vocal fremitus was much increased over this portion of the lung. Loud whistling, breathing, accompanied by snoring and silibant rales, together with great intensification of the vocal resonance, was heard over the same area. After a week in bed he resumed work, though continuing to have paroxysms of cough and dyspnœa, in one of which he expectorated the proximal portion of a vulcanite pipe stem half an inch long by one-third of an inch broad, which he then recognized as belonging to the pipe he had in his mouth at the time of the accident. A few days after the event the signs above noted disappeared, and the cough and dyspnœa no longer troubled the patient. The noteworthy features of the case are: (1) The patient's unconsciousness of having swallowed the foreign body; (2) the length of time that it remained undiscovered; and (3) the physical signs. When a foreign body becomes impacted in a bronchial ramification, one would naturally expect to find collapse of the portion of lung supplied by it. The pipe-stem, however, was peculiar in that, although acting as a plug, it also probably allowed air to enter through its perforation; and it is uncertain whether the signs of consolidation were true and were caused by the presence of the foreign body, or whether the signs were false and were produced by the vulcanite acting as a resonator,

Charlotte Medical Journal

EDWARD C. REGISTER, M. D., Editor.

No. 36 South Tryon Street, - - - -

- - - - - - - - - - - Charlotte, N. C.

PATHOLOGY AND TREATMENT OF EPILEPSY.

In a large majority of the text-books on practice of medicine, the pathology of epilepsy is entirely omitted. In only a few is there any attempt at defining any pathological lesion which enter into the causation of the disease. Hughs, in his Practice of Medicine says "There are no constant anatomical lesions as yet associated with essential epilepsy. Holt, Disease of Children, quoting from Gowers, "Epilepsy must then be regarded as a disease of the gray matter of the cortex."

Gray, in his Nervous and Mental Diseases, says, but we must remember, too, that epilepsy can be produced by such extra-cranial lesions as disease of the spinal cord, of the peripheral nervous system, of many of the non-nervous visera, by alteration of the blood, such as are to be found in albuminuria and mal nutrition, and by the action of many toxic agent and various febrile conditions, so that it would be a matter of large assumption to say that in all these various conditions the cortex of the brain alone is the part affected.

Osler, in the latest edition of his "Practice" omits the subject of pathology entirely.

A very essential point in regard to any feature of a disease is in the unvarying presence of that particular condition in that disease. Its unvarying presence, without an absence, under any circumstances. The presence of that condition in the disease without a failure in the disease, even in any of its modified forms is thus recognized as being a pathological feature of that disease.

Wm. H. Thompson in a paper "Pathology and Treatment of Epilepsy" read before a meeting of the New York Academy of Medicine. N. Y. Med. Journal Nov. 8 and 15th, 1902, covers this subject well. He says: We have to go deeper, therefore than the varying symptoms, deeper than its curiously different external manifestations, in search of something which neither varies nor differs, but is always present in every case of epilepsy. If such an element can be found then we are in a line of approach to something fundamental in the pathology of the disease. Again he says: "The never varying element in epilepsy is suddenness. Epilepsy is the only sudden disease." Other conditions may come on suddenly in the general appearance of their occurrence, or recurrence, and yet there are, and to be recognized, prodromata leading up to such conditions, which are of some more or less extended duration. But in Epilepsy the onset of the disease is sudden with a prodromata, if any occur, of the utmost limit in extent of time. Continuing Dr. Thompson says: We are therefore brought, at this stage of our arguments to certain fundamental facts in the pathology of the nervous system, for pathology may be spoken of as physiology under difficulties, but physiology still. The first law in the physiology of the nervous system is that the beginning of every nervous action is always on the afferent side. A spontaneous i. e. a primary, motor or efferent discharge is unknown in physiology. Why should it occur without an afferent excitation in epilepsy?"

Every action or muscular display of any kind must follow from the efferent impulse after the afferent impulse has been set up by the peripheral irritation. We have many examples where some irritation to the nerve supply of some parts will cause epileptic seizures. Gastric irritation from various causes will often produce epileptic convulsions. Injuries to parts of the brain or parts of the body causing afferent impulse which provokes the efferent impulse, throwing the muscular system into epileptic seizures.

Thus every lesion which causes epilepsy must naturally be located away from the center of the cortex, from which the efferent impulse is transmitted.

Dr. Thompson defined Epilepsy as a disease characterized by a sudden derangement of the normal regulative inhibition existing between corticle nerve centers induced in the first instance by an abnormal afferent excitation.

With a consideration of the cause of epilepsy in every case as a motor or sensory effect, the method of treatment will be much changed over that usually persued. The first and paramount important thing to do is to thoroughly study the patient, to ascertain decisively the locality and form of the lesion which serves as the peripheral irritation. Then when the true cause or lesion is once recognized the treatment must be applied toward correcting that condition.

Dr. Thompson lays much stress upon three points in treatment. That of a continous or protracted use of Bin Iodide of mercury 1-25 gr. A red pepper pack at night, by an infusion of the strength of one half to one dracem of capsicum to the pint of boiling water applied until the skin is red. And third an out of door life.

DR. LORENZ'S VISIT AND CRIPPLED CHILDREN.

The visit of Dr. Adolph Lorenz to this country has created quite an interest which assumed an intenseness among the lay and a legitimate earnest enthusiasm among the members of the medical profession.

So marked an interest in such an important line as is the work of Dr. Lorenz must have its benefit, and undoubtedly will not fail in its effect upon the progress and utility which the profession will assume as a result of the work which he did here in our midst. It is not that the profession has been in ignorance of the Lorenz method of treating congenital dislocation; but it required such an awakening (at least so it seems) to arouse the profession to the real possibilities in the matter and to open its eyes to the great need of such work in our land, in the interest of the great army of cripples, which, unless some such measure comes to their rescue, must go through life a burden to themselves, to those upon whom they are dependent for maintenance, and frequently the community where they reside.

The influence and effect of the clinical work of Dr. Lorenz among us will undoubtedly stimulate some persons in various sections of our country to perfect themselves in this operation that they may become proficient in following out the Lorenz method, and thus establish centers where crippled children will have the opportunity of being treated and put upon their feet; thus making of them independent self-supporting individuals, besides, at the same time what is extremely important, making it possible that others may be able to take up the work and become expert in doing the operation, and so perpetuate the work in the future. The great number of applications which came forward for treatment at those points where Dr. Lorenz was expected to operate, show the large number of subjects that exist in our country afflicted with this deformity who need aid.

This subject will attract the interest and attention of philanthropists to this distressing condition. And as a result, hospitals and sanitariums will be established in the interest of this class of cripples. When such conveniencies are provided other forms of crippled children that go through life in a maimed condition will be given more careful attention and a more thorough course will be devised for the relief of, not only those suffering with congenital dislocation of the hip but all forms of curable as well as many that are now considered incurable will be treated more carefully and earnestly.

With such institutions there should be established special industrial departments or schools where the various forms of industrial instruction may be given to all needing aid, besides furnishing a useful education and training to those cripples who cannot be made independent or freed from their impediment.

Another point of gain will be in the universal interest which will attract the profession throughout the country and cases that would otherwise have escaped the attention of some members of the profession will be brought to light and attention will be secured for their treatment, and too, at that age when they are most amenable to be helped.

LEGISLATION IN KISSING.

"Some mean old maid without a doubt
Who never tasted bliss
Was first to start that tale about
The microbe in a kiss."

"Kissing prohibition or restriction" is intended in a bill introduced into the Virginia Legislature by a physician. This bill punishes by a fine of from one to five dollars for any person to kiss another—unless it can be proved by the testimony of the family physician, that the kissers are free from all infectious diseases as well as from pulmonary troubles. It seems that this bill has been framed by the impulse of a sanitarian, to prevent contagion of tuberculosis. We agree that the profession has a higher duty to prevent, than to cure contagious diseases. All means to achieve this purpose are laudable, but the bill mentioned appears to be impracticable, unjust and inhuman, and reminds us of antiquid ated blue laws, which orders a fine, if anybody kisses his wife on Sunday. It further necessitates any loving person, who intends kissing to provide certificates of good health for himself and the other person to be kissed. Another question is, how to carry out the intention of that bill, how to catch, arrest and convict kissers, how to prove they have any grade of tuberculosis. how to settle that one party was a culprit willing to be kissed. Neither is it usual, that two willing parties kiss in public, on the contrary select a private room without witnesses. and even do not mind a certain degree of poor burning light or gas. When a patient is sick and has tuberculosis, a kiss from a near relative would cheer him, and it appears a very cruel act, that a kind sign of sympathy and love should be punished with a fine. True some persons would be willing to pay five dollars for a kiss from a beauty at a fashionable fair, even if she had no certificate from her family physician. Some celebrity of a singer or actress has even raised the price for the favor. By

no means do we depreciate the efforts of Boards of Health to prevent infection and we are believers in the contagion of tuberculous under certain circumstances, which the following story may illustrate. A gentleman afflicted with tuberculosis slept in one bed with his favorite healthy dog, who in consequence became infected with the disease and died. Several dog successors had the same fate. The disease may be carried in a similar way from husband to wife. However we object only to a legislation, which is impracticable in every way, and in some manner even inhuman. A kind sympathy and care in giving a kiss will scarcely hurt, and do a lot of good.

RHEUMATIC FEVER.

Possibly in few diseases does there seem to be such a unanimity of opinion, regarding medicinal treatment, as in in rheumatic fever.

The salycilates in some form or other being the mainstay in possibly 90% of all cases treated. And yet practically every author of note will admit that the treatment of this painful affection is unsatisfactory, that there are frequent relapses; and that too often heart complications, particularly endocarditis ensues with sometimes fatal consequences, or if not fatal, leaving a crippled heart and a crippled individual.

It is true that medicines hae little control over the duration of this disease, most cases running from 2 to 6 weeks. or until inflammation subsides. There is no doubt, however, that much can be done to modify its course; and as a modifier there is no drug comparable to potassium carbonate. This is an exceedingly soluble salt, must be given well diluted and, unlike the bicarbonate of potassium, is not irritating to the digestive organs. In fact, it has a particularly soothing effect on an irritable stomach, and is an excellent remedy to relieve vomiting, given in from 1 to 2 grain doses every hour or half hour.

In acute rheumatism it should be given in from 10 to 15 grain doses every 2 hours until an amelioration of symptoms, and after that every 3 or 4 hours during the entire course of the disease, increasing or diminishing the dose as may be indicated. It acts best when given on an empty stomach, and never should be given immediately after eating. It should be freshly prepared daily.

It has the power of diluting the blood; the amount of urine is markedly increased and rendered alkaline. Free uric acid is converted into soluble urates and speedily eliminated. Its action is rapid. It relieves pain quickly, and if continued regularly seems to modify the inflammatory process. We wish to say regarding pain, that our cases do not average more than 3 small Dover's powders during the entire course of the disease. We never give morphia.

Potassium carbonate has a sedative action on the heart, and under this treatment cardiac and arthritic complications rarely occur; it is the drug to use when any cardiac complication is suspected or expected. Personally, we have never had any trouble with heart complications since using this treatment, nor have we had any thickened or stiff joints remaining as a sequel.

On the other hand the salycilates in fairly large doses, such as are usually recommended in acute rheumatism, reduce blood-pressure and most decidedly weaken the cardiac beat. More than that, the drug has a cumulative action, and some cases of death due to cardiac weakness can easily be traced to a long continued use of the drug. It is true that in rheumatism you may produce a fall of temperature, by the salycilates, but this fall is always accompanied by a profuse sweat, which is very exhausting. Its antipyretic action being due to a depression of the central nervous system, it is in fact, a form of shock, and in no way does it tend to eliminate the poison of the disease or modify its course, the temperature usually rising rapidly after sweat is over. It is not reliable antipyretic, an instance being recorded in Foster's Therapeutics in which sodium salicylate sent a temperature of 101 deg. F. up to 107 deg. F. Its action on the kidneys is not what a proper comprehension of the disease demands. It even at times tends to diminish the amount of urine secreted and may bring on hematuria and albuminuria.

Germain See observed no change in the nitrogenous elements in the urine after the use of the drug in health or disease. It certainly does not increase the elimination of uric acid and thus lead to cure, while it does increase the liability to relapse.

It is a dangerous and unscientific drug to use in rheumatic fever.

BRAIN SYMPTOMS IN EAR DISEASE.

The general practitioner should be ever mindful of the fact that the brain may, and not infrequently does become involved in suppurative inflammation of the middle ear. Furthermore the practitioner should ever be mindful of the fact that, *The first symptoms of brain complications, in suppurative ear disease, are the last warning, the last call for surgical interference*, (Kœrner) if these very important symptoms are not heeded the case rapidly goes on to a fatal issue.

Kœrner is of the opinion that meningitis, complicating ear disease is most frequently

produced by an unperforated resistant membrane.

Treating on the subject of purulent middle ear disease, many years ago, Wilde stated: "We can never tell where or how it will terminate."

Otogenous meningitis mostly follows chronic suppuration in the cavities of the middle ear through direct contact of the diseased portions of the temporal bone with the cerebral meninges, either with or without perforation of the dura. The propagation through the labyrinth is more frequent either after destruction of the fenestral membranes, perforation of the semicircular canals by cholesteatoma, carious processes, or by extension of the pyogenic germs along the nerves, aqueducts, and veins into the arachnoid cavity. The labyrinth may be completely shut off from the middle ear and nevertheless transmit the infectious agent to the meninges."

According to Treitel and others, one-third to one-half of all cases of brain abscess and sinus complications result from ear disease The popular belief that cerebral complications are accompanied by frequent pulse and elevated temperature is an error; indeed, quite the opposite is fre quently found, slow pulse, and not infrequently normal temperature. Pain, elevated temperature and symptoms of brain pressure, choked disk and oculomotor paresis, are most frequently found in children and young adults. Pain in the temporal region especially upon percussion or pressure, may be found in any of the brain complications. When there is excessive discharge from an ear, we should at once suspect accumulations of pus under the dura. When brain structures are involved, the symptoms manifested depend upon the parts attacked. If one of the large venous sinuses becomes involved as in formation of thrombus, the temperature changes are characteristic. Sudden rise in temperature 104 or 105. This persists but a few hours, and is followed by a fall to the normal. Intermittent elevation may occur several times during the day, for this reason temperature should be frequently taken.

Dench says we have no characteristic symptoms. It is rather the absence of any characteristic manifestations, but the failure of the patient to improve should always excite suspicion of this complication. When in an acute mastoiditis, the pain diminishes in severity and assumes the character of a general headache, while at the same time the patient becomes progressively dull and unobservant of his surroundings, temperature remaining normal or but slightly elevated, invasion of cerebral cavity should always be suspected.

ORIGINAL ARTICLES SENT TO MORE THAN ONE JOURNAL.

Certainly the most cultured members of the Medical Profession are those who are the frequent contributors to the medical press. This fact makes it rather embarrassing to the thoughtful who observe how common the custom among them is to have at least twenty copies of their papers made and distribute them among medical journals for publication. This prevalent method among contributors to journals is, to put it mildly, not the best of professional manners and often places an editor in an awkward position. Of course each editor when he receives such a paper congratulates himself and promptly publishes the article if he does not happen to find carefully and artfully concealed within its pages an advertisement. There is no doubt in my mind that the pains taking editor has long ago recognized that it is as important to look for these hidden advertisements, when the writer is not personally known, as it is to look for the scientific points in the paper. To any one who has not a feeling of responsibility in the matter and who has no feeling of regret when he observes these irregular methods that have crept into the every day life of so many physicians must be amused, really entertained when he reads some of the pseudo medical literature that is so abundant in so many of our medical journals. Much of this matter is cleverly written and it is often difficult, but sometimes possible for an intelligent critic to detect that the author has never seen a Medical College and his long and extensive clinical experience with the medicine is all imaginary. It was mainly this class of medico commercial writers who first conceived the idea of sending their pseudo medical productions to every medical journal that they could fool. Of course we have prominent men, men who are leaders in medical thought and men who want to do the right thing, who will send their papers to more than one Journal. To this class the writer only intends to call their attention to the questionable ethics in the matter.

FRUIT FOR THE SICK.

It is not often that fruit should not be given to sick people. Quite often raw fruits are objectionable, but it is seldom that cooked fruits are not palatable, nutritious and a very desirable food for a sick patient. Compotes, prepared as they usually are, are not suitable for the sick. They contain too much syrup. In fevers they produce nearly always a tympanitis that is very annoying to the patient and is not without danger.

Sour acids are much more agreeable and at the same time capable of doing much good.

As a nutriment, fruits are often invaluable; they carry water and various salts and organic acids into the system in order to stimulate appetite and improve digestion. Cooked fruits may be eaten with any meal, but when fruit is used for special dietetic purposes, its effect is always more pronounced if taken alone, either at the commencement of meals, or better, between them. Fruit in general is less wholesome when eaten out of its natural season.

When a person in ordinary health cannot eat strawberries because of the acid they contain, a little white pepper sprinkled on the fruit counteracts the effect of the acid without impairing their delicate flavor.

A very fine mixture for many convalescent patients is that of large, ripe, red raspberries and white currents, blended with a syrup flavored with orange and lemon juice, and frapped.

Bananas contain a large percentage of starch and are highly nutritive. For a well person eaten at the beginning of a meal they are very wholesome, but often they are better if cooked. While they are very valuable as a food in many diseases, they should never be given in fevers, especially typhoid fever. I have often observed dangerous gastro-intestinal symptoms after the ingestion of bananas in this disease.

Dr. J. G. WALTON.

Dr. J. C. Walton, formerly of Reidsville, N. C., has moved to Chase City, Va. He has been made by appointment chief physician to the new Mecklenburg Sanitorium which is located there. Dr. Walton is well known all over this state, having been for several years prominent in social, financial and professional circles. He was at one time a member of the Medical Examining Board of this state. His term of office having only expired last June. The Medical Society of the state and the profession of the state have lost one of their most genial and cultured physicians.

The position which he has now accepted is a prominent and responsible one. This new hospital or sanitorium is one of the largest and most magnificent in the South. It is located at Chase City. Va., near the celebrated mineral springs known by that name. The several mineral waters found there are already well known for their medicinal value. This new sanitarium with its several hundred rooms and all of its modern conveniences and beautiful surroundings is an ideal place for the sick, the convalescent and the pleasure seeker. We wish Dr. Walton the greatest success possible in his new work.

OBITUARY.

Dr. J. G. Ramsay.

At Salisbury, N. C., on January 10th, 1903, Dr. J. G. Ramsay died in the 80th year of his age. He was for a half century one of the most prominent and useful citizens of this part of the state. He graduated at Davidson College in 1841, receiving the degree of Master of Arts. In 1848 he received the degree of M. D. at the Jefferson Medical College, Philadelphia. He practiced his profession in Rowan County for fifty-one years and during the most of this time he was considered, not only by the laity, but by his associates in the practice, one of the most cultured, and one of the most skillful and one of the most ethical gentlemen in the medical faculty in his county. The Rowan County Medical Society at one of its recent meetings passed the following resolutions of respect:

Whereas, God, in His inscrutable wisdom. has called our venerable member, Dr. J. G. Ramsay, to his final reward, resolved:

1st. That we recognize His right to dispose of all things to His own glory, and while we mourn the loss of a valued member, we feel that our brother has left us a precious heritage in his exalted character and in the lofty example illustrated in his professional career.

2nd. We realize that to Dr. Ramsay the Creator had bequeathed a rich legacy of the varied qualities of intellectual endowment. He was a literary, scholarly and scientific man; a constant reader and a clear and profound thinker. His mind grasped, with keen discernment, the finer and salient points along different lines of research. He was also possessed of an excellent knowledge of human nature, which enabled him to gain a potent influence over his fellow citizens, resulting in his elevation to places of honor and trust. His success was not attained by the arts of the demagogue, but by the innate force of a strong personality.

3rd. To the Rowan County Medical Society he was a tower of strength in its incipiency; and by right of preeminence. he can truthfully be denominated one of its founders and fathers. His name heads the list of its charter members. His allegiance to the society knew no abatement while his

physicial strength remained, and his counsels were always sought and valued while he participated in its active work. He expressed to the members, not more than a year ago, his keen regret that failing health would not permit continued attendance upon the deliberations of the society.

4th. Dr. Ramsay was second to none in upholding and illustrating the ethics of the profession, and he recognized in every practising physician a brother bound to him with strong and tender ties.

5th. Dr. Ransay's personal and religious life were conspicuously free from blame, and he was, emphatically, a pure man. Habits of abstemiousness and temperance ruled his life, and his speech and behaviour, at all times, were such as to commend him to his associates as one worthy of emulation. His attitude, in his latter days illustrated, strikingly, the bible truth that "The hoary head is a crown of glory if it be found in the way of righteousness."

6th. Resolved that a copy of the preamble and resolutions be sent to the members of the family, and also to each of the city papers aud the State Medical Journals for publication; and that a page on our record book be set apart to his memory.

JOHN WHITEHEAD,
W. L. CRUMP,
J. S. BROWN,
I. H. FOUST,
} Committee.

Book Notices.

Saunders' Medical Hand-Atlases—Atlas and Epitome of Diseases of the Mouth, Pharynx, and Nose. By Dr. L. Grunwald, of Munich. From the second Revised and Enlarged German Edition. Edited, with additions, by James E. Newcomb, M. D., Instructor in Laryngology, Cornell University Medical School; Attending Laryngologist to the Roosevelt Hospital, Out-Patient Department. With 102 illustrations on 42 colored lithographic plates, 41 text-cuts, and 219 pages of text. Philadelphia and London: W. B. Saunders & Co., 1903. Cloth, $3.00 net.

In designing this atlas the author has kept constantly in mind the needs of both student and practitioner, and as far as possible, typical cases of the various diseases have been selected. The illustrations are described in the text in exactly the same way as a practised examiner would demonstrate the objective findings to his class, the book thus serving as a substitute for actual clinical work. The illustrations themselves are numerous and exceedingly well executed, portraying the conditions so strikingly that their study is almost equal to examination of the actual specimens. The editor has incorporated his own valuable experience, and has also included extensive notes on the use of the active principle of the suprarenal bodies in the materia medica of rhinology and laryngology. The work, besides being an excellent atlas and epitome of the diseases of the mouth, pharynx, and nose, serves also as a text-book on the anatomy and physiology of these organs. Indeed, we wonder how the author has encompassed so much within such a limited space. We heartily commend the work as the best we have seen.

Culbreth's Materia Medica and Pharmacology. Third Edition. A Manual of Materia Medica and Pharmacology. Comprising all Organic and Inorganic Drugs which are and have been official in the United States Pharmacopœia, together with important Allied Species and Useful Synthetics. By David M. R. Culbreth, M. D., Professor of Botany, Materia Medica and Pharmacognosy in the Maryland College of Pharmacy, Professor of Materia Medica and Pharmacognosy in the University of Maryland Medical and Dental Schools, Baltimore. Third edition enlarged and thoroughly revised. In one octavo volume of 905 pages, with 473 illustrations, cloth, $4.75, net. Lea Brothers & Co., Publishers; Philadelphia and New York, 1903.

The growing appreciation of this work is shown by the fact that its second edition has doubled the rate of sale of the original issue. The third edition not only shows a thorough revision to date, but it also reflects the future by forecasting the new United States Pharmacopœia. The outlined list of proposed official drugs and preparations already determined upon by the committee has been used as a guide in preparing this edition, in consequence of which a number of articles that are to be accepted have been treated prominently, while those that are to be discarded have been considered briefly. The recapitulation tables also have been compiled in accordance with this same list, and therefore contain only those drugs which will be recognized officially. In many other respects the entire volume will be found to reflect the spirit of the new Pharmacopœia, and it will be of Peculiar interest and value to all who desire to be posted in advance upon the coming changes so far as they affect Materia Medica and Pharmacology.

The arrangement of the work having proved so successful in previous editions has not been altered. It is based upon the principle of associating, as nearly as pos-

sible, those substances, organic and inorganic, which have a common or allied origin, allowing those next related to follow in regular order, the basal or parental source thus being kept paramount.

Organic drugs, carbon and synthetic compounds are arranged similarly, their chemical relationship, however, being borne always in mind. Measurements are expressed in both the ordinary and metric system, and temperature is stated in both Centigrade and Fahrenheit scales, thereby giving an equal opportunity for use according to individual preference. Doses are stated in the apothecary's and metric system, in the hope that the easy comparison of the parallel equivalents may afford a stronger mental impression, and thereby become an element toward metric education.

Several pages have been devoted to the pronunciation of words more or less troublesome to the average student, the aim having been to follow the best philologists rather than general custom.

The illustrations have been revised as carefully as the text, and a number of new engravings have been prepared to replace older ones in the endeavor still further to strengthen the teaching value of the work.

The volume is simply a mine of information upon the vast range of subjects covered by the Materia Medica and Pharmacology of to-day.

Progressive Medicine, Vol. IV, December, 1902. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, handsomely bound in cloth, 412 pages, 54 illustrations. Per volume, $2.50, by express prepaid. Per annum, in four cloth-bound volumes, $10.00. Lea Brothers & Co., Publishers, Philadelphia and New York.

The concluding volume of 1902 with a remarkably thorough consideration of the most recent advances in the diagnosis and the treatment of Diseases of the Digestive Tract, including the liver, pancreas and peritoneum, by Dr. Einhorn. His discussion of affections of the gall bladder and pancreas will be fouud of especial value to the general practitioner. The study of these subjects has recently received an enormous impetus, and many hitherto obscure clinical manifestations are now found to be connected with pathological conditions of these organs. Dr. Bloodgood's section on Anesthetics, Fractures, Dislocations, Amputations, Surgery of the Extremities and Orthopedics is a thorough discussion of all these important topics, accompanied by a large number of valuable illustrations. Dr. William T. Belfield writes upon Genito-Urinary Diseases, giving especial attention to the much-discussed treatment of prostatic hypertrophy. Dr. John Rose Bradford, in the section on Diseases of the Kidneys, discusses very fully the many manifestations of renal diseases, their complications, and the most recent methods of treatment. The section on Physiology by Dr. Brubaker will prove of more than usual interest and value to the general practitioner. He describes fully the wonderful experiments and discoveries concerning life and vital reactions which have been made by Professor Loeb and Mathews. These have been so generally exploited in popular magazines, and have attracted such widespread interest that a scientific resume of their real value is a necessity to every medical man. Dr. Harrington's chapter on Hygiene relates the wonderful results attained by the practical applications of recent investigations into the cause and prevention of such diseases as yellow fever and malaria. The Therapeutic Referendum presents all the facts regarding the most recent remedies and methods of treatment. This feature alone would suffice to make the volume indispensable to the up-to-date physician.

Saunders' Medical Hand-Atlases.—Atlas and Epitome of Human Histology and Microscopic Anatomy. By Privatdocent Dr. J. Sobotta, of Wursburg. Edited, with additions, by G. Carl Huber, M. D., Junior Professor of Anatomy and Histology, and Director of the Histological Laboratory, University of Michigan, Ann Arbor. With 214 colored figures on 80 plates, 68 text-illustrations, and 248 pages of text. Philadelphia and London: W. B. Saunders & Co., 1903. Cloth, $4.50 net.

This work combines an abundance of well-chosen and most accurate illustrations with a concise text, and in such a manner as to make it both atlas and text-book. The great majority of the illustrations have been made from sections prepared from human tissues, and always from fresh and in every respect normal specimens. The colored lithographic plates have been produced with the aid of over thirty colors, and it is evident that particular care was taken to avoid distortion and assure exactness of magnification. The text is as brief as possible; clearness, however, not being sacrificed to brevity. The editor of the English translation has annotated and altered very freely certain portions of the sections on the adenoid tissues, blood and the blood-forming organs, muscular tissues, special sense

organs, and peripheral nerve distributions, making these parts conform to the latest advances in the study of these tissues. The work will be found useful as an atlas, text-book, and book of reference for student and practitioner. We strongly recommend it.

A Tale of Washington.—"Around the Capital with Uncle Hank," is a new book by Thomas Fleming, after the plan of the one he issued last year which elicted considerable favorable comment: "Around the Pan." "Uncle Hank" is an old countryman, with considerable native humor in his make up, who visits the National Capital and his comments are made the means of giving the reader an introduction to that city and its many show places. There is much good descriptive matter, though, that is not through the medium of "Uncle Hank's" country dialect; which is a relief, as a steady run of this kind of matter soon palls upon the reader. There are many illustration. Many of them are very good cartoons of men who are well-known in public life, and running through the volume there are marginal pictures of members of the House and Senate, and other office-holders.

Literary Notices.

The Review of Reviews begins a new volume with one of its characteristic numbers—a publication that could never by any possibility be mistaken for any other magazine in the world—128 pages as full of real "news" as the morning paper and yet as solid and well-considered as the best of the foreign quarterlies. Venezuela is very much at the front at the opening of the new year, and the Review not only gives space to a valuable editorial discussion of the British and German claims and the proposed modes of adjustment, but opens its pages to a full presentation of the case of the powers against the little South American state, as set forth by Mr. A. Maurice Low, a well-informed Washington journalist. The "man of the month" in international affairs is our minister to Venezuela, Mr. Herbert W. Bowen. A character sketch of this typical diplomat of the American school, written, it is understood, by an intimate personal acquaintance, forms a noteworthy feature of the January Review. Among the subjects engaging the attention of Congress hardly one can be named that is more important in its bearings on the public welfare than the question of protecting the grazing lands of the West, from which comes the national meat supply. This is the theme of the authoritative and judicious article from the pen of Dr. E. Benjamin Andrews, who has made a special study of the Western cattle situation. Dr. Andrews' article is accompanied by an exhaustive inquiry into the present advance in beef prices by Mr. Fred. C. Croxton, of the national Department of Labor. Another of the problems before Congress—that of the currency—is clearly outlined in a paper by Charles A. Conant describing the expedients recently resorted to by the Treasury to relieve the stringency in the money market. The rural free delivery service, the advantages of which were emphasized in President Roosevelt's message to Congress, is the subject of an illustrated article by Day Allen Willey. The other topics of discussion in Congress are fully treated in the opening editorial department of the magazine, "The Progress of the World." In the fleld of British politics, Mr. W. T. Stead contributes a clarifying *resume* of the debate over the education bill, which has just been passed in Parliament. The late speaker Reed is the subject of an appreciative tribute by Henry B. F. Macfarland. Mrs. Elizabeth Carden contributes an illustrated article on "Friedrich Albert Krupp —the Essen Philianthropist," supplemented by a paper on "The Krupps and their Steel Works at Essen" by Miss R. H. Knorr. The place of the regular cartoon department is taken this month by a sketch of Thomas Nast, the dean of American caricaturists, who died the other day in South America. Mr. Ernest Knaufit is the writer of the sketch, which is illustrated with some of Nast's most famous cartoons.

The Jauuary Lippincott's Magazine.—The "New Year" number of Lippincott's Magazine is a veritable mine of good fiction, containing a whole novel and nine short stories, besides several papers of timely interest, some choice verse, and fun galore in the department called "Walnuts and Wine,"

The novel is "The New Heloise," by Mrs. Schuyler Crowninshield. In this there is new evidence that "Love Laughs at Locksmiths" and stone walls—even those of a French convent. There is a young probationer behind these walls seeking refuge in priestly garb from a distasteful marriage arranged by a too-zealous step-mother. But he is not destined for such a life, and love is waiting for him in the form of as charming a French girl as can be imagined. A candidate is lost to celibacy and happiness reigns supreme.

Edgar Fawcett's story, "The Resurrection of Edith," is an absolutely novel plot,

both weired and fascinating. There are two Western tales: one by E. Boltwood called "A Bivouac de Luxe," and one by H. Giovannoli called "A Bull Mountain Pastoral." Both of them are so good it is difficult to pick the winner. Albert Payson Terhune contributes what may be considered his best effort, and his is a name well known in the story-writing world. It is entitled "The Man with the Shoulders." "Judith in Mackford's Entry," by Grace Rhys (wife of the English novelist, Ernest Rhys), is a pathetic story of a pretty Irish girl who was induced to go to London to better herself, and who was lured into the disreputable "Mackford's Entry." Ina Brevoort Roberts, the author of that popular novel published in Lippincott's entitled "The Lifting of a Finger," contributes a delightful tale entitled "The Decision." W. A. Fraser's story, "The Resurrection of P. I. G.," is both humorous and earnest. "A Stolen Day," by Harriet Clay Penman, is about a day's journey on the cars, with a physicological touch which is charming. Bernice C. Caughey contributes an attractive sketch called "A Fair Fee," in which a man shows how clever he can be to win the girl he loves.

J. G. Rosengarten's paper on "Franklin in Germany" must make a wide appeal at this time. It pleases while it informs.

"English Wives and American Housekeeping" are subjects which Mrs. M. E. Leicester Addis knows thoroughly, having lived long enough in America to learn to love our "ways."

Poets who appear in the January number of Lippincott's Magazine are Edwin L. Sabin, William Hurd Hillyer, Ruth Hall, Charlotte Pendleton, Antony E. Anderson, William Anwyl Jones, Richard Kirk. Lulu Whedon Mitchell, and Fullerton L. Waldo.

The reviews of the last quarter's progress which constitute the main section of the January-March number of the Forum cover, as usual, the leading departments of public activity, especially in the United States. The most prominent place is given to Henry Litchfield West's review of "American Politics," including, of course, the Congressional elections, and this paper is closely followed by a similar account of "Foreign Affairs" from the pen of A. Maurice Low. Of no less importance is the description by Alexander D. Noyes of the quarter's movements in "Finance," concluded as it is by a careful estimate of future probabilities. "Applied Science," in its various phases, is treated by Henry Harrison Suplee. The paper on "Literature," by Frank Jewett Mather, Jr., contains valuable criticisms of recent books, and that on "Painting," by Russell Sturgis, comments on the latest artistic developments in our country. Ossian H. Lang writes on "The Educational Outlook," and the editor, Dr. J. M. Rice, sets forth under the heading of "Educational Research" the conclusions to be drawn from his own investigations, previously recorded, into the causes of success and failure in the teaching of arithmetic in public schools. The present issue is completed by articles on "Waterways: an Economic Necessity," by Prof. Lewis M. Haupt, and on "The Passing of the American Indian," by Thomas F. Millard.

Pierpont Morgan is undoubtedly the most fascinating figure before the world to-day, "Mr. Morgan, His Advisers and His Organization" are discussed at length in the January Cosmopolitan by John Brisben Walker, who spent ten days between Mr. Morgan's and Mr. John Mitchell's offices, in September, in the attempt to settle the coal-strike.

Abstracts of the Leading Articles of the Month.

Appendicitis.*

The author proved that the exact pathological condition in any given case cannot be diagnosed, he said that: "We have no method of examination which will enable us to predict the exact pathological process or to form a picture of the anatomical changes in the appendix or its immediate neighborhood before opening the abdomen." He said: "We cannot even know,

1st. The position of the appendix,

2nd. The size of the appendix,

3rd. The shape of the appendix,

4th. Whether the distal or proximal end of the appendix or the whole of it is affected,

5th, Whether there is a foreign body or not.

6th. Whether there is a stricture or not,

7th. The extent or limit of the peritonitis or whether it is limited by adhesions or not.

8th. Whether there is peritoneal effusion or not,

9th. Whether there is gangrene or perforation,

10th. The exact nature and form of the infection.

Since we know not all these things and many more, in any given case of appendicitis, we must be content to say this is a case originating in the appendix, and its

* Abstract of paper by A. C. Bernays, of St. Louis, read Dec. 30th, at Western Surgical Society.

course will depend upon the course which the unknown pathological process may take. What must we do under such circumstances? Of course we must operate as early as possible in the attack. This does not mean operate on every case as early as you are called to see it. It means operate always if you are called in the beginning of the attack, but if you are called in after several days have passed then do not be in a very great hurry to operate. It will be wiser under these circumstances to allow yourself a little time, during which to administer free purgation and to let the effects of opiates which may have been given before you saw the case wear off. You may then have the great advantage to see a distended abdomen become flat or even to see the pulse and temperature become normal before you make an operation, or possibly you may decide not to operate during the intermediate stage at all and wait for the chronic stage of the disease which we know always exists between attacks. The writer cited a number of cases in whom abdominnl distention, which is often mistaken for general peritonitis, was caused by an abscess which compressed the intestine, frequently the sigmoid in the pelvis or even the rectum. These cases, he said, suddenly changed from apparently moribund conditions to nearly complete convalescence by removing the compression of the intestine either by surgical or spontaneous evacuation of the pus. The author further said that the division of appendicitis cases into (1) *acute cases*. during the first 24 or 48 hours, (2) intermediate cases of more than 2 days duration, and (3) chronic or interval cases, was the best because of its practical utility. He said that Somenburg's division into (1) simple, (2) perforative and (3) gangrenous cases was of no use because the three forms cannot be diagnosed or differentiated from each other by the physician or surgeon before the belly is opened.

What Somenburg calls a simple case of appendicitis may at any time change into a violent, fulminatiag case without any apparent cause. The severest symptoms are sometimes found in cases in which very insignificant local disturbances are found. Sometimes a little localized pain on pressure is all that can be found. This symptom is all that is required to justify an operation although it does not always call for one.

The author with much emphasis dwelt on the point that surgical interference might be much more safely deferred in cases in which there was a plain tumor and dullness in the right coecal region, than in those cases in which there is no circumscribed tumor. "*The abscence of a tumor is a more pressing indication for immediate interference than its presence.*"

Clinically speaking appendicitis is not a typical disease. In at least one-half of the cases seen early there is no dullness to indicate the existence of an exudate or tumor in the right iliac fossa. Again the author reports that he has seen a well defined dulness disappear in a day, an occurrence which he thinks means a decidedly dangerous change requiring immediate operation because the clearing up of the dulness was most probably due to entrance of air or gas into the abscess cavity, as he has found in several cases operated on soon after the dulness had vanished. It is thus again seen that the presence or absence of tumor and dulness are misleading and unreliable symptoms, upon which to base an exact diagnosis or upon which to rest either an operative or expectant plan of treatment.

Whenever an operation for appendicitis is performed within 24 hours after the attack, it is successful in about 98 per cent. of all cases thus treated. The writer objects to the use of the word "early." He says these operations are performed at the correct and proper time and not early but prompt operations. The use of the term early is likely to produce opposition in the mind of a timid consultant who may be one of those men who floats the banner of what is called conservatism. These operations are never done too early in the attack, but they may be done too early after the case is seen. The surgeon cannot operate too early in the attack, but he can operate too early or too soon after he has been called into a case too late in an attack.

In regard to a statement, that an amelioration of symptoms justifies delay and may be regarded as a contraindication to operation, the author has this to say: "I have shown that nature and present stage of the progressing pathological lesion is unknown to us and cannot be interpreted by the most skilled and learned one of us, from an analysis of the symptoms," therefore, the existing dangers in delay cannot be estimated and may be greater than those of an operation which at least can establish drainage, and can limit the progress of sepsis. In the intermediate stage during which amelioration of symptoms most often occurs, procrastination is not so dangerous as it is during the first two days. There is no excuse for a man who does not call in a surgeon to operate if he sees a case of appendicitis during the first 24 or 48 hours, providing he can reach a man who is skilled in intestinal surgery. Those cases of appendicitis, which are still much too numerous, that are first seen by a surgeon from 5 to 15 days after the beginning of the disease, the

writer regards as fit for the treatment recommended by Ochsner. These cases are always of the kind so frequently treated by all physicians before the clinical picture of appendicitis was worked out, as idiopathic peritonitis or perityphlitis. In these cases we witness a fight for the patient's life, between the septic and toxic infection of the blood and other tissues on one hand and the antitoxic and eliminatory life processes on the other. Besides we find the struggle made much harder for the organism, by a more or less pronounced obstruction of the bowels. This intestinal obstruction is the one feature which the physician and surgeon must constantly keep in view. Ochsner's method is a good one and no doubt has saved many lives, but in my opinion the use of opium should be given up, and the purgation with salts and castor oil be made the main features together with gastric and colonic lavage. In cases in which passages through the bowels can not be achieved by the above means two or three enterostomies, buttonholes, are recommended, and the author has saved cases of diffuse peritonitis which he could not otherwise have saved. There are some cases also in which by means of flushing and extensive drainage of the peritoneal cavity, noxious septic pus can be drained, in addition to the above treatment. It is the intestinal obstruction which threatens to end life. The pus in the general cavity or confined in circumscribed abscesses is getting more and more sterile as time passes, and does not so urgently require attention as does the intestinal obstruction which prevents proper nutrition.

At the German Congress of Surgeons held in Berlin, April 1902, *Spreugel* proposed collective investigation of the appendicitis problem and proposed three questions to be answered by all the surgeons he could reach.

The first question: How does the early operation compare with that of the interval? is answered as follows:

(1) The mortality of the interval operation is very low taking all cases together. Out of more than 400 cases I have had no deaths, although some very difficult cases were met with. I think the mortality will not reach one per cent. My own mortality during the last one hundred acute cases was three. My mortality in 566 cases done during the past fifteen years reaches 9 per cent. I think it is lower now, because I do not now insist on operations in late intermediate cases in which there is a chance to save the patient by the treatment above mentioned, as suitable to cases who have more or less chronic peritonitis and sepsis.

(2) Question second: Has the early operation any special dangers as compared to the interval operation?

Answer: Aside from the greater dangers arising from the anesthesia I would answer, no. The results of the very early operations, say in the first 26 hours as low as those of the interval operations. I have had only fifty six very early operations and have had only one death which was caused by chloroform.

(3) Question three: What are the results of early operations in comparison with late operations, and how do the results compare in the different stages of the disease?

Answer: Operations done early are easier and are more complete than later operations. The results of prompt early operations are more satisfactory than late operations, the results are most gratifying to the patient as well as to the surgeon in the worst forms of peritonitis with free effusion, if done promptly.

The paper concludes with a plea for a more scientific investigation of appendicitis. Similar stages and similar pathological processes must be compared with each other, and we must cease trying to solve this many sided problem as an undivided subject.

"Influence of the X-Ray on Malignant Growths."*

During a summer vacation I investigated the subject of "Influence of X-Ray on Malignant Growths" in the principal hospitals in Chicago, New York and Canada and on return home wrote to about fifty of the leading surgeons in America asking for results of their personal experience in its use.

Most of them answered; mostly favorable to its use, some doubtful and a few saying it had no use in therapeutics of malignancy.

In analyzing cases reported, as a result of this correspondence I find we have forty-four cases of Sarcomata, nine cases of which were apparently cured, fourteen not improved. Of these latter most were given only a few treatments; some were nearly dead when they came under observation. All cases treated were inoperable and the X-Ray was used as a last resort, four are now under treatment.

Of cancers eighty cases were reported, thirty-five superficial carcinoma, of these twenty-four were healed or apparently cured. One was improved, pain reduced and tumor decreased in size. Six not improved. Four now under treatment. Most of these were situated on the face where

* Abstract of a paper read before the Iowa State Association of Railway Surgeons at Des Moines, Oct. 20-21, 1902, by D. C. Brockman.

the scar following excission would have been disfiguring. Sixteen cases of deep-seated carcinoma; three of which were apparently cured; ten failures and three under treatment.

I am unable to get any reliable information regarding results in Tubercular Laryngitis. Several throat men report, "Cases under observation" but none are ready to offer any opinion as to results, they are not ready to report.

Of Tubercular Glands forty-one cases reported, ten of which were apparently cured, four improved and twenty-seven failures.

Just how irritation destroys the neoplasms is yet unsettled but probably by its action on the imperfectly short-lived cells whereby they are devitalized and absorbed.

At times we see in large superficial tumors the process of devitalization goes on much faster than absorption and we have as a result a large soft mass of aseptic, broken-down tissue that soon breaks through the skin and discharges as a thin sanious necrotic fluid composed of disintegrated cells; the cavity thus formed soon closes up and the process of repairing rapidly continues.

Not only does the "modified light" have a benefited effect on malignment neoplasms but also on a large variety of skin diseases, especially in lupus, acne, sycosis and chronic eczema.

In summing up his experience and as a result of the literature and personal correspondence he arrives at the following conclusions:

Superficial Epithliomata yield readily to a soft tube 12 to 15 minutes sceances every day, at twelve inches.

Sarcomata and deep-seated cancers require a hard tube 12 to 20 minutes at 4 to 6 inches distance, always protecting the surrounding tissue by lead foil, but leaving a feustvra large enough to irridate the surrounding tissue farther than would have been reached if an operation had been done.

I am firmly of the opinion that after excising malignant neoplasms from the breast or skin we should in every case follow up the operation by repeated exposures of the adjacent surface and especially in the direction of the lymph canals that drain the site of the former growth using a tube of strong penetrating power in hopes we may in this way destroy some focus of disease cells left at the time of the operation.

Then to recapitulate and apply the above material to actual use. I advise the use of the x-ray in, 1st. All cases of lupus, acne, persistent eczema, and intractable sycosis, using a soft tube for eight to twelve minutes.

2nd. All external inoperable sarcoma and to follow all operations on superficial sarcoma.

3rd. On all superficial epthilioma of the face so situated that excision would leave badly disfiguring scar.

4th. On all inoperable superficial cancer including mammary cancer.

5th. Following all operations on superficial cancer.

The possibilities of good results in the use of the X-Ray on internal malignant growths on tubercular glands and laryngitis or pulmonary tuberculosis seems to me too problematic for our consideration with our present knowledge.

Our promises to our patients in any case should not be too hopeful as we are yet on experimental ground. Even the apparent cures in malignant cases must wait the regulation three years period before they can be admitted in our statistics as cures.

In the meantime we should study carefully the character of the cases influenced by this remedy so that in time we may be able more accurately to define its indications and predict its therapeutical results.

A New Method of Shortening the Round Ligaments Intraperitoneally for Retroversion.*

Dr. Byford's operation consists in folding the ligaments anteriorly, as in A. Palmer Dudley's operation, but in stitching the loop to the abdominal parieties about opposite or behind and a trifle above the internal inguinal ring.

The ligament is grasped with hemostatic forceps and pulled out of the abdominal incision until it is drawn as far out of the inguinal ring as possible without doing violence to the tissues. Then a medium-sized catgut suture is passed through the center of the ligament about a quarter of an inch from the uterine end and the same suture is passed through the ligament about half an inch from the internal ring. The suture is then drawn tight and tied like an ordinary ligature, except that it includes only half of the ligament in its grasp. The inner edges of the loop thus formed should now be touched with a chemical irritant, such as Monsel's solution or 1-5000 mercuric bichlorid in order to destroy the endothelium and secure firm adhesions. The irritant is then wiped off and the irrited edges sewn together by fine catgut that entirely closes in and covers up the denuded peritoneal surfaces.

The end of this fold is then touched with the chemical irritant and stitched forward beside the bladder about opposite and a

* Abstract by Henry T. Byford, M. D., read before the Western Surgical and Gynecological Association at St. Joseph, Missouri, December 30. 1902.

little above the level of the external inguinal ring. This, of course, will be only a peritoneal attachment and should be rather high because the peritoneum is held in place here rather loosely.

Thus we practically have two round ligaments on either side, one going from the uterus partly through the first ligature to the attachment behind the external inguinal ring and the other from the uterus to the ligature and from there to the internal inguinal ring, etc.

The uterine half or quarter-inch, or inch, according to the place where we transfix the ligament, is common to both of the newly formed round ligaments.

On Direct Endoscopy of the Upper Air Passages and Esophagus.

Killian (British Medical Journal) says pressure on the base of the tongue or the laryngeal surface of the epiglottis with one of the different spatulas designed by Kirstein may suffice to give, even in young children, a view into the trachea. But Killian much prefers to employ direct upper tracheoscopy, using a straight tube of sufficient length and a width small enough to get through the rima glottidis. He is thus entirely independent of any disturbing reflex action of the pharynx or larynx. In the adult, local anæsthesie with a 25 per cent. alcoholic solution of cocain is nearly always sufficient, but a preliminary injection of morphin in addition is a great help. In children it is best to give chloroform, the head hanging over the edge of the table.

He prefers to use a "mandrin" or the finger as a guide, but he introduces the instrument without "mandrin" under the guidance of the eye, looking continuously through the tube and finding his way gradually through the pharynx and larynx into the trachea.

Foreign bodies are thus easily discovered and extracted. If freely movable they are apt to be blown against the lower end of the tube and may thus produce attacks of suffocation; by pressing the foreign body back, respiration is at once made free again.

If tracheotomy has been necessary and the foreign body has not been coughed up, a short tube may be introduced through the tracheotomy wound into the cocainised trachea—lower direct tracheotomy, a method employed by Pieniaczek.

Aspirated foreign bodies are specially apt to become fixed in the bronchi. If only just beyond the bifurcation, upper or lower direct tracheoscopy is all that is necessary for diagnosis and extraction. If deeper down, emyloy tubes of greater length. We may, without fear, press the bronchi, which are highly elastic tubes imbedded in soft tissue, into the median line and bring trachea, larger bronchus and branch thus into one straight line. Thus out of the upper and lower tracheoscopy his methods of upper and lower bronchoscopy were envolved.

Bronchoscopy allows the whole bronchial tree to be searched. Though the left principal bronchus branches off at a sharper lateral angle, it is through gentle pressure brought almost as easily into view, as the right. The view has to be kept clear by sponging the secretion away, or by sucking it up by means of a small pump. For all these methods of examination illumination is best made by Kirstein's forehead lamp; for demonstrating purposes Kaspar's handle is most useful. The foreign body can thus in most cases be found or its absence proved with certainty.

If a tube is introduced into a principal bronchus which is entirely stopped up by a foreign body respiratory difficulties will at once occur, as air cannot pass, in large enough quantity, into the other healthy lung, at the side of the tube; under such circumstances the tube introduced should have a lateral opening at some distance from its lower end.

For the removal of foreign bodies from the bronchia a good view, great care, and quietness in procedure are essential. Slender tubular forceps, blount hooklets (especially in the form of the well-known Lister's hook), are the instruments of most use. Their manipulation at so great a depth is not an easy matter, but may be learned and practised on a phantom.

Malignant Endocarditis.

Poynton and Paine (Medical Press and Circular) have been studying for some time past the pathogenesis of rheumatic fever, and have adduced strong evidence in favor of a diplococcus infection in this disease. They have studied some 30 cases of malignant endocarditis which were associated with a history of acute rheumatism, and in which, during a course of the disease, there were not infrequently active manifestations of rheumatic fever. As a result of their investigation they concluded that there was a group of cases of malignant endocarditis, rheumatic in origin. They base their conclusions on the following grounds:—1. Clinical experience of cases of this malady. 2. Pathological investigation. 3. Bacteriological experience. (*a*) Rheumatic fever is due to a diplococcus. (*b*) A diplococcus can be isolated from these cases of malignant endocarditis which will reproduce the disease in rabbits. (*c*) The cultural and morphological characteristics of these two diplococci resemble one another so closely

as to lead to the conclusion that they are identical organisms. (*d*) The diplococcus rheumaticus when passed through a series of rabbits will produce malignant endocarditis indistinguishable from that produced by the diplococcus isolated from certain cases of malignant endocarditis in man. (*e*) The diplococcus rheumaticus may produce in a rabbit first a recoverable illness resembling rheumatic fever, and then on a second inoculation, malignant endocarditis. (*f*) A diplococcus, isolated from certain cases of malignant endocarditis in man, will also produce not only malignant endocarditis in rabbits, but a condition indistinguishable from rheumatic fever. (*g*) By these diplococci every grade of valvulitis, from simple to malignant, and *vice versa*, can be produced.

The Etiology of Prostatic Hypertrophy.

C. Frank Lydston (Interstate Medical Journal) concludes:

1. The principal defect in most theories of the etiology of prostatic hypertrophy is the arbitrary attempt to attribute it to one particular cause or co-related set of causes. This is especially true of inflammation, senility, general atheroma and diathetic conditions.

2. The prostate, while in some respects an involuntary muscle, is anatomically and functionally a sexual gland.

3. The relation of the all-important structure of the organ to micturition is accidental as shown by the perfect performance of this function prior to the period of development of its glandular structure. The urinary function is physiologically secondary, and where prominent is pathologic.

4. Granted the sexual and glandulosexual function of the prostate, it is chiefly to a perturbation of this function that we must look for an explanation of so-called hypertrophy of the organ, and especially of all pathologic disturbances not directly due to traumatism or infection.

5. Even though the muscular tissue plays a secondary role, it deserves consideration in prostatic pathology. Muscular overwork is probably a urinal factor at least in the etiology of prostatic hypertrophy. This is especially true when once the so-called hypertrophy has fairly begun.

6. Hypertrophy of the prostate is probably due largely to overstrain of the organ during the period of its greatest sexual activity. This overstrain produces congestion and glandular proliferation, connective tissue and muscular hyperplasia. If this persists for a long time, it is not followed by resolution, but by permanent enlargement. Prolonged and ungratified sexual excitement, with the resulting disturbance of the circulation of the prostate, may equally with sexual excess so derange the nutrition of the gland that hypertrophy results late in life.

7. Inflammation, gonorrheal or otherwise is an important etiologic factor.

8. The conditions constituting the point of departure from the normal prostate that underlie prostatic hypertrophy come on earlier in life than is usually supposed, a large proportion of individuals being affected by it.

9. Hypertrophy is usually attributed to senile change, simply because the secondary results of prostatic enlargement do not appear or become marked in most instances until the patient is well along in years. Prostatic overgrowth occurs, as a rule, before middle age, but residual urine does not accumulate in any great quantity until after the bladder walls have become atonic by virtue of the physiologic changes of age, and the insidious effects of unnoticed obstruction. Residual urine in considerable amount may be innocent until germs enter the bladder and set up decomposition.

10. Prostatic hypertrophy in advanced life, from overstrain of the organ at an earlier period, is explicable upon the same grounds as is the development of arthritic disturbance, in men beyond middle age, at the site of a traumatism—i. e., strain received in early life.

11. The changes produced by inflammation in early life may go steadily on and later develop prostatic hypertrophy.

12. Senility, gout and rheumatism are, in all probability, not exciting causes of prostatic hypertrophy, but are determining factors, in so far as they promote irritability of tissue, a tendency to connective tissue, proliferation, inelasticity of tissue, and, in the case of the diatheses mentioned, hyperacidity of the urine with frequent micturition.

13. General atheroma is often responsible for a condition in which both bladder and prostate are thickened and sclerosed. This condition, of all others, should not be classed as hypertrophy. Prostatic hypertrophy is to a certain degree, an evidence of conservatism on the part of nature in her attempts to resist strain and promote rest of a much-abused organ. This resistance begins at the time when such abuse is most pronounced, although its effects may not be manifested until the time element and other influences have come into play, later in life.

14 While the prostate is not normally a urinary organ, strictly speaking, and while disturbance of micturition per se may not cause prostatic hypertrophy, said disturbance causes muscular overwork. When

once it arises as a consequence of prostatic hypertrophy, it necessarily reacts upon the diseased organ and enhances the pathologic condition. Inasmuch as frequent micturition is generally dependent upon conditions directly or indirectly affecting the prostate —usually of an inflammatory nature—it must be conceded an important role in the etiology of prostatic hypertrophy, if we accept inflammation as a factor.

15. In normal old age the prostate should atrophy. That it does not do so more frequently is explained (1) by the prolonged duration of the sexual function, incidental to the developmental effect of overindulgence and other causes of sexual overstimulation; (2) by the frequency of hyperplasia of the organ from the causes herein presented.

16. It may be remarked in passing that neither the human male nor female is, on the average, perfectly healthy sexually. The sexual function is made subservient to gratification rather than procreation—for which it was originally designed. The sexual life of the lower animal typifies the normal, in most instances, while that of the human subject typifies the abnormal, or, if you please, the artificial. There is no question in my mind as to the truth of this assertion regarding the female, and I suspect that it bears with equal force upon the sexual function and organs of the male. That an organ is patient and long-suffering under abuses of its physiology does not obtain for its possessor immunity from future penalties.

17. Careful rectal examinations of men, from the age of twenty upwards, show that a prostate which is perfectly normal in size, consistency and sensibility is the exception rather than the rule. This is true of the masturbator and sexual hypochondriac, as well as the individual who has had posterior urethritis, although the latter condition is, it must be confessed, a very frequent explanation. That is aberration of the prostate is followed, in the majority of cases, by a return to the normal condition is highly improbable, in view of the fact that most men so affected lead lives which are so unphysiologic, from a sexual and dietary standpoint, that the condition is likely to be aggravated rather than improved. To complete resolution in patients who continue sexual abuse and perhaps overindulge in the pleasures of the table would be absurd. The penalty in such cases is, in my opinion, very frequently hypertrophy of the prostate.

18. The nomenclature of prostatic disease should be thoroughly overhauled and remodeled along scientic lines. As now used, the term "prostatic hypertrophy" is an omnibus term covering a number of different conditions. When this has been done, we will hear less of total prostatectomy and more of the enucleation of prostatic tumors.

Laparotomy in Typhoid Perforation.

Surgical intervention for the relief of perforation of a typhoid ulcer has not hitherto been attended by any great measure of success even in hospital practice, where alone the intervention is likely to be resorted to without dangerous delay. The Medical Press and Circular believes that one cause of the failure to save life is apparently that although only one ulcer may actually have perforated others are on the point of giving way and ultimately do rupture, thus vitiating the result of the operation. From the medical point of view the great obstacle lies in the extreme difficulty of deciding whether or not perforation has actually taken place. The absence of liver dulness which is such a valuable guide in perforation of a gastric ulcer, for instance, is of less significance in these cases because the marked abdominal distension usually associated with an attack of typhoid fever may mask it even in the absence of actual perforation. The trend of opinion seems to be that when there exists a reasonable probability of an ulcer having given way it is well to operate, especially as perforation in typhoid fever usually takes place late in the course of the disease, that is to say, after the third week, at a time when the patient is in a state to withstand the operative shock. It is generally agreed that operative measures for perforation which supervenes during the active, acute stage is useless, and, if resorted to, is likely to bring the procedure into unmerited discredit. Physicians no longer evince any reluctance to requisition the services of the surgeon in these cases, since, although the chances of recovery are small, they are desirous of affording their patients this one desperate hope of being spared the otherwise unavoidably fatal issue. It is possible, however, that small perforations take place more frequently than one is apt to suppose, in the absence of the characteristic symptoms, and there is actual evidence that such perforations may and do undergo spontaneous healing. The supervention of the classical symptoms of perforation—a brusque fall of temperature with acute abdominal pain sweats and profound collapse—probably indicate not only that perforation has occurred, but also that the perforation is one of some magnitude.

Entrance of Air into the Veins.

Goodridge (American Journal of the Medical Sciences) reports very interesting experiments from the Physiological Laboratory of Columbia University, and concludes an important paper as follows:

1. *Preventive.* When operating in the region known as the "danger zone" none but the prone position should be permitted, for should one of the veins be injured, the semiprone or sitting posture predisposes to entrance of air into the veins. If any dissection is necessary, as is often the case, it should invariably be performed with a blunt instrument, never with a scalpel. Special care should be used if the operation is one for the removal of cancerous or tuberculous glands, which are always more or less intimately connected with structures adjacent.

2. *Radical.* Should attention be called by the hissing sound accompanying the rush of air into the veins to the injury of a vessel in this region, the finger should be forced into the wound to prevent further entrance of air, the wound cavity should be filled with salt solution, and the chest should be compressed forcibly. If bubbles are seen in the fluid contained in the wound they are due to air coming out. If, however, the heart becomes tumultuous, if the churning sound attracts attention, and if the respirations become labored and the inspirations forced, a needle should be inserted into the fourth left interspace one inch from the left border of the sternum; it should be directed obliquely upward and backward, and the right ventricle will be entered; aspiration should be continued until the blood comes out unmixed with air; then, an assistant having previously prepared a solution of normal salt at a temperature of 115 deg. to 120 deg. F., it should be infused into the patient until fluid has been introduced equal in quantity to the blood taken from the heart. The most convenient region in which to perform this infusion is the median basilic veins.

To the writer the following facts seem clear;

(1) That entrance of air into the veins, even in small amounts, is to be dreaded, as it may result in death. (2) That death is due to gaseous distention of the right heart or to air emboli in the coronary vessels, and not to primary respiratory paralysis. (3) That combined treatment by aspiration and infusion we may expect to be attended with good results.

In conclusion, he believes the statement "that large quantities of air may be introduced into the veins without unfavorable result" to be pernicious teaching and not supported by fact.

Myelopathic Albumosuria.

Bradshaw (The London Lancet, Oct. 4, 1902). makes the following remarks: The onset of the disease is insidious. The earliest symptoms observed may be either those associated with the state of the bones or those associated with the state of the urine. As a rule it is the bone-condition which first leads the sufferer to seek medical advice, though there can be little doubt that the characteristic reaction of the urine would be found at a very early date if it were looked for. Kahler's patient, who was a medical practitioner, had albumosuria for several years. In this author's first case, the patient observed that his urine was milky several months before he felt ill, and the patient he saw in Lyons had been passing albumose for nearly a year and a half before he had to relinquish an active practice. As regards the manner in which the albumose makes its appearance there is only one observation on record, and that is in connection with the case at Lyons. This patient had an attack of pneumonia in December, 1899, from which he made a good recovery, but during convalescence traces of proteid were discovered in the urine, and the quantity gradually increased until it was as much as 10 per 1,000. If, therefore, we may be permitted to generalize from this single case, we may state that although in the developed stage the albumose is abundant, it is first erected in traces and the amount gradually increases. It is obvious that the abnormal state of the urine is not likely to be discovered until the sufferer becomes a patient, and it is generally the condition of the bones or the associated general debility which leads him to consult a medical man. In fact, pains in the back or sides, suggesting rheumatism or neuralgia, together with progressive anemia and weakness are in most instances the earliest symptoms of the complaint. The pains are generally severe. They are aggravated by movement and are accompanied by local tenderness. A remarkable feature is that they vary in position and intensity from day to day and from week to week, and the sufferer may sometimes experience so great and prolonged a relief that his friends and even the medical attendant may be deluded into the belief that a real improvement is taking place. The patient in the author's first case, after being confined to bed for weeks in great agony, recovered sufficiently to go into the country, where he used to walk in the garden; but before many months the pains returned, and were ended only by death. Physical examination of the bones yields results which differ greatly in different cases. In the case referred to above no enlargement or tumor

was felt, but the spine was fixed and bent, while the ribs seemed to have lost their natural rigidity, so that the chest-walls appeared to yield under the pressure of the hand or of the stethoscope, and irregularities suggesting fractures could be felt by the finger. In the other two cases which he has seen distinct tumors were observed in relation to the bones. The Lyonese physician had a semifluctuating swelling about the size of a large hen's-egg in connection with one of the ribs, and the X-rays showed that there was a breach of continuity of the bone. The only tender spot that could be found was on one of the ribs over the precordium. The spinal column was quite movable. Anemia and lassitude were profound toward the close, but presented no special characteristics.

He regards prognosis in the following light: The course of the disease is from bad to worse, though, as has already been stated it is not uniformly so. It is rare for life to be prolonged for a year after the symptoms are sufficiently pronounced to lead the patient to seek advice, but in Kahler's case it is alleged that some symptoms were present eight years before death. The prognosis is pretty much the same as in malignant disease: death may be due to exhaustion or to some intercurrent disorder, of which pneumonia seems to be not infrequent. The author's first case developed pneumonia while he was watching the disease, but recovered, to die six months later, worn out by pain, weakness and diarrhea. The Lyonese patient died a week after his visit, from acute pneumonia, while the bone disease seemed to be not far advanced. It is an interesting fact that in the former case, the presence of albumose was recognized in the pneumonic sputum.

Spastic and Syphilitic Spinal Paralysis.

Erb (British Medical Journal, Oct. 11, 1902) reviews the progress that has been made in the recognition and differentiation of spinal orders and the establishment of spastic spinal paralysis, due to disease of the lateral column. It is characterized by weakness and awkwardness of movements, spasm and rigidity of muscles increased by energetic action, and well-marked exaggeration of the tendon reflexes, no disturbance of sensation, no Romberg's sign, no change in the functions of the bladder, bowels and generative organs, no muscular atrophy, no change in the electrical reaction, no ataxy, no disturbance in the organs of sense, the pupils, cerebral nerves, speech, psychic function, memory, etc. If we find any of these conditions the case is not a pure one of spastic spinal paralysis. Its progress is slow. It is not directly fatal, but if progressive leads to complete helplessness, and the patient may finally die in a marasmic condition. Its etiology is in the dark. Apart from hereditary influences, nothing is known. Syphilitic spinal paralysis on the other hand differs from this, and was differentiated by him in 1892. It is characterized by the fact that, with the special symptoms of spastic paralysis, there is always a disturbance of bladder function and usually slight sensory disturbances. It is generally chronic and insidious in its onset, sometimes, however, more rapid, is variable in its progress, with long remissions, but death may occur after a rather rapid course. Kuh has written up the subject elaborately, but Erb thinks that further differentiation may be possible and useful. The writer believes that more clinical observation and study is needed before we will have a thorough idea of the nature of the lesions. Its pathologic anatomy is not the picture that one would expect. It is rather a compound system disease, a primary gray degeneration in various fiber systems of the spinal cord, chiefly in the posterior half of the lateral tracts and tracts of Gowers; the posterior tracts, the tracts of Goll, and partly also in the posterior-lateral cracts (Burdach's columns). Other secondary lesions may follow. The prognosis is not altogether unsatisfactory; though recovery rarely occurs. It may be expected only in the earliest stages, but a sudden standstill of the disease may be brought about and a considerable duration of life be expected. Treatment is, of course, specific. In conclusion he mentions the general effects of syphilis on the spinal cord.

The Treatment of Atonic Dilatation of the Stomach by Means of High-Frequency Currents.

Crombie and Bokenham (The London Lancet, Oct. 18, 1902) have treated seventeen cases. The apparatus employed consisted of a Ruhmkorff coil, giving a twelve-inch spark with heavy discharge. The secondary wires of the coil are led to the inner coats of two Leyden jars with adjustable dischargers. The outer coats of the jars are connected through a variable number of turns of thick wire, one of which is connected with the earth, the other with the lower coils of an Oudin's resonator. The current used for treatment is obtained from one of the upper coils of the resonator, and it is a rapid surging, alternating current of high voltage. It is applied in a variety of ways, by special electrodes, *e. g.* monopolar brush, glass or ebonite condensers, and moistened flexible plates of sheet lead, and of large size. In the early cases treated the patient was placed on a couch

and the region of the stomach was "sprayed" by a brush electrode held at a distance just beyond that at which a direct spark would pass between the electrode and the skin. The effect experienced was described as similar to the dropping of a shower of warm sand on to the skin, and after a few minutes peristaltic movements of the stomach would often be distinctly felt. A very convenient condenser electrode can be made by filling a large flat-flottomed flask with salt water and passing a wire through an indiarubber cork fitted to its neck, the free end of the wire being connected to the resonator. With such an arrangement the effect is, perhaps, more exactly localized to the region it is desired to influence. The lead foil electrode is of such a size as to cover the whole gastric area; close contact is secured by interposing a layer of wet flannel between the metal and the skin. With this the patient usually feels scarcely anything over the area of application, and the quantity of the charge depends upon the electrostatic capacity of the individual. The effect of the application is in most cases highly invigorating. After a number of applications the stomach was found to have assumed its normal position and size, and the other parts of the intestinal tract to have returned to their normal relative positions. In all but two cases normal digestion was restored. In one there was no improvement in digestion, owing, apparently, to hypochloridia, although the stomach remained of normal size.

The Mechanical and Combined Plastic and Mechanical Treatment of Retrodeviations of the Womb.

Rosenwasser (American Journal of Surgery and Gynecology, November, 1902) says that a retroverted womb uncomplicated by disease should be replaced and supported by a pessary.

Retroversion complicated by diseased womb or impaired pelvic floor, the womb being movable, requires preliminary plastic operation to restore the normal condition before using a mechanical support.

Suspension operations should be done simultaneously with the plastic, in face of the probability that a pessary can sustain the womb in position.

Retroversion complicated by aggravated prolapsus requires simultaneous plastic and suspension operations to effect a cure.

The treatment of retroversion with fixed womb is that for pelvic inflammation. Whenever the latter requires laparotomy or colpotomy, the retroversion becomes subject to such surgical treatment as may be best suited to the particular case.

Retroversion, simple or complicated, in which mechanical support and plastic operation have failed to cure or to relieve, and in which the symptoms demand relief, constitutes a proper indication for a suspension operation.

A Study of Burns.

Munson (Medical News) mentions four things that should be observed in order to obtain perfect results in the treatment of burns.

1. Never use a dry dressing.

2. Never forcibly remove the skin or deeper tissues; prevent their removal if possible. Keep the wound free from pus with liquid antiseptic, and nature will remove the dead tissue by healthy granulations beneath. The skin is a protection.

3. Never use any oils or salves. If these are used, pus will form.

4. Never change dressings too frequently.

A perfectly antiseptic liquid dressing will keep the wound clean and odorless; hence change is not necessary.

The earlier a burn is dressed the better for the patient, but it can be treated at any stage with equal success. After months of faulty treatment the pus has been seen to disappear in four or five days and a healthy granulation appear, healing perfectly and leaving no scar. If the patient has been in good health previously, constitutional treatment is seldom needed—no stimulants, no catharsis, no sedatives, after the first hypodermic to allay the sensory nerve irritation. Antiseptic dressing prevents further constitutional disturbance.

The writer does not use oils because they are not antiseptic and do not prevent pus formation. Nitrate of silver and acids often form eschars by breaking down instead of building tissues. Adhesive straps, by pressure, prevent healthy granulations. Above all, carbonate of lead should be avoided because of its poisonous effects. Two brothers who were burned in a gas explosion were so poisoned and disfigured by the lead dressing as to make them hideous. After months of torture both to themselves and to the mother who cared for them, their fingers dropped off and their faces were distorted beyond recognition. Another boy burned at the same time, and just as badly, with other treatment recovered without disfigurement. Carbonate of soda and hydrogen dioxide in superficial burns are often useful when one cannot get something better, but they do not vitalize the tissue, and for speedy healing this is very essential.

After witnessing the effects of these and many more the writer has discarded them all, and now uses only glameide, which is found to be a perfect antiseptic and vital-

izer; it is the sheet-anchor. It may be that when possible to use it, the pasteboard box may secure protection to the granulations when forming, but in a case recently treated by the author it would be hardly possible to use it. A little girl, two years of age, sat down in a kettle of hot soup just removed from the stove and carelessly placed upon the floor. She was literally cooked from her feet to the epigastric region both front and back, except the knees, which were above the edge of the pot. With nature's ceaseless calls and a two-year-old child's judgment, the box treatment would have been inexpedient. This child, with no medicine, and only the glameide dressing, was healed and walking about in five weeks. Not a particle of pus formed notwithstanding the disadvantage of age and location; not an eschar, except a small spot where she broke the granulations during the healing process and caused profuse bleeding.

Munson's method of dressing is, first, to give the patient a hypodermic injection, just enough to allay the intense pain from injury to the terminal sensory nerves. Second, to arrange the bed upon which the patient is to lie. If the body is burned, a piece of rubber tissue is placed on the bed large enough to encircle the body. There are two reasons for this: it prevents evaporation from dressing and wetting of bedclothes. Third, take a piece of absorbent cotton an inch thick and large enough to cover the burn on the body. Fourth, into a platter, pour the antiseptic diluted with one-third hot water (the heat is to prevent the chill to the denuded surface); then dipping the cotton carefully into the warm dressing, place it on the rubber. Over this be sure to put some thin and old cotton or gauze, also wet in the dressing, and carefully laid over the cotton to prevent the adherence of cotton to the wound. Lift the patient carefully and lay him upon the dressing; bring the cotton cloth carefully over the wound, then the saturated cotton, then the oiled silk or rubber tissue, and fasten carefully, snugly, but not tight. Wherever the burn is, the treatment is the same until all is covered. Don't put the patient on a hard bed. Keep him comfortably warm.

The Surgical Treatment of Tuberculous Cervical Adenitis.

Mitchell (Bull. of the Johns Hopkins Hospital). One hundred and seventy cases of tuberculous disease of the lymph nodes of the neck form the basis of this communication. Of 13,000 surgical patients, 1,098 were admitted for tuberculosis, and of these, 170 with tuberculous nodes of the neck; that is, 8 per cent. of all the surgical patients were admitted for tuberculosis and 1.3 per cent. of all for tuberculous lymph nodes of the neck. The neck cases comprise 15 per cent. of all those with tuberculosis, and are exceeded in number only by those with hip-joint disease. Of whites there were 83 cases, of negroes, 61 or about 4.3. In 34 of the cases there was no note on the condition of the lungs before operation; 89 were stated as being negative; 13 as suspicious, and 7 showed positive evidence of tuberculosis.

Radical operation, that is removal of all the nodes in the neck with surrounding fat, was done in 59 cases. The dangers of the operation are said to be slight and its mortality practically zero. Injury to the thoracic duct should be avoided in operating on the left side of the neck.

From the study of the cases here recorded and their subsequent observation, and from the results of others, the following conclusions are drawn: 1.—Tuberculous adenitis is primarily a local disease of very frequent occurrence, more often in young persons; in itself not extremely serious and rarely if ever proving fatal. 2.—It bears, however, a certain definite relation to tuberculosis of the lungs and serves as the starting point from which tuberculosis may spread. 3.—The tuberculin test as an aid to diagnosis is positive and harmless. 4.—While recovery may often take place under good hygienic conditions surgical interference is clearly demanded in most cases. 5.—When surgical treatment is resorted to the operation should be radical. 6.—Recovery may be predicted in 70 to 80 per cent. of cases so treated. Tuberculosis of the lungs after complete removal of the nodes is comparatively rare. 7.—Tuberculosis of the lungs unless far advanced is not a contraindication to operation, the removal of the nodes apparently exerting a beneficial influence on the condition of the lungs.

Pregnancy and Labor after a Uterine Rupture.

Stronganoff (Journal of Obs. and Gyn. of the British Empire) reports two cases of rupture of the uterus, in both of which a laparotomy was performed and the rupture repaired. Both cases agian became pregnant and were delivered at full term.

He concludes:

1. A ruptured uterus, repaired by a laparotomy permits a new conception to take place and a normal pregnancy to follow.

2. A woman, having had a uterine rupture, must be kept under close observation during the last two or three months of the

next pregnancy, so that an operative procedure may be carried out.

3. A transverse tear of the lower uterine segment diminishes the elasticity and may to a certain degree prevent the fixing of the presenting part.

4. One must do an operative delivery if the strength of the uterine wall has been diminished by the tear.

5. The combined version of Braxton Hicks, if the child is still movable and the bag of waters has not ruptured, or the bringing down of a foot in breech presentations are to be highly recommended in these cases.

6. Different complications of labor, especially contracted pelvis, must be treated according to the general rules of obstetrics.

7. An intra-uterine examination of the previously ruptured portion must be made after the delivery.

Empyema in Children.

Cotter (Boston Medical and Surgical Journal) concludes an article as follows:

1. Empyema in children usually follows lobar pneumonia—after a varying interval.

2. The infection is usually with the pneumococcus.

3. Spontaneous cure, even when aided by tapping, is rare.

4, Operation should not be delayed, as time lost is strength lost, and the issue is largely one of nutrition.

5. The best form of operation is in general the subperiosteal resection of an inch of the eighth or ninth rib in the posterior axillary line, the evacuation of pus and fibrin masses, and tube-drainage.

6. Irrigation at or after operation is not usually advisable.

7. Routine after-treatment in fresh cases should be tube-drained, the tube being progressively shortened, and removed when the cavity is nearly healed.

8. Where failure to heal seems to depend on failure of the lung to re-expand, treatment by valve or suction apparatus is indicated. This is especially of value in the more chronic cases.

9. The mortality is about one in seven; in small children it is much greater than in those over five years. The causes of mortality are, in the main, beyond our control.

10. The great majority of cases heal even when the healing is delayed for many months. Chronic empyema, in the strict sense, is rare in children.

11. The closure of the cavity depends mainly on nutrition and on adequate drainage.

12. Recurrence may take place from faulty drainage at any time, and it may occur years after apparently sound healing, without obvious cause.

13. Deformity of the chest is usually temporary and yields to treatment.

14. Long-continued discharge from the cavity is not infrequently followed by chest deformity and scoliosis of a severer type, permanent, and sometimes extremely severe.

The Ocular Manifestations in Chronic Bright's Disease.

DeSchweintz (Medicine, Dec.. 1902) says that the oscular lesions which may be associated with or caused by various forms of Bright's disease are these:

1. Complete blindness without ophthalmoscopic lesions, or at least without the presence of lesions more or less suggestive of disease of the kidneys, generally called uremic amaurosis, and most often seen in acute nephritis, but also in acute exacerbations of chronic renal disease.

2. Various types of retinitis and neuroretinitis, to which the descriptive term "albuminuric" is commonly applied, and which are most often seen in association with chronic forms of kidney disease.

3. Alterations in the caliber and relation of the retinal vessels owing to sclerotic changes in their walls, with or withont hemorrhages and exudates in the retina, seen in association with those forms of renal disease in which vascular changes are evident elsewhere in the body; also isolated hemorrhages and exudates, without marked vessel-wall changes.

4. Alterations in the uveal tract, particularly in the choroid and iris.

5. Some varieties of cataraet.

6. Paresis and paralysis of the ocular muscles, particularly the superior oblique and the external rectus.

7. Recurring subconjunctival hemorrhages.

Bacilluria and Cystitis in Typhoid Fever, and the Action of Urotropin Thereon.

Bass (Edinburgh Medical Journal) thinks that urotropin should be given as early as possible without waiting to diagnose the bacillus. A cloudiness of the urine may frequently turn out to be due to other circumstances than bacilluria. But the safest plan is to give the drug, and make the diagnosis of the bacillus at leisure. No harm will be done, and further trouble will be prevented. Secondly, the drug should be given at sufficiently frequent and at equally distributed intervals—that is to say, that the effect aimed at should be to keep the urine always in an antiseptic state and for this purpose, if the administration be thrice daily, it is better to give it eight-hourly than at the usual times of 10, 2 and

6, since the latter method leaves the urine for sixteen hours under the influence of only one dose. Thirdly, to give sufficiently large doses, as ill effects are infrequent, slight, and easily removed. If necessary, 20 grains every four hours can be given with safety. Fourthly, to keep up the administration for a considerable period after the cessation of the condition. Unless the antiseptic influence be kept up long after the bacilli have apparently ceased to multiply, a relapse is almost sure to take place. Urotropin scotches, but does not kill.

Rectal Feeding.

Deucher (The London Medical Lancet) says that this means should only be resorted to for short periods of time (five or six days) if no other nourishment is allowed, but for longer periods if subcutaneous or intravenous injections of sodium chloride solution are simultaneously given. It is disadvantageous to feed by the mouth at the same time, as simple enemas (Reinigungsclystiere) have to be given before each introduction of food into the rectum, and the mucous membrane of the bowel becomes irritated and diarrhea often ensues. Eggs are well suited for rectal feeding, and three at a time can be introduced if one gramme of sodium chloride for each egg is added (Huber). This promotes absorption. Albumoses (peptonized food) are absorbed much faster, being predigested, but it must be remembered that 60 grammes (two ounces) of peptones afford only as much nourishment as one and a half eggs. Mixtures of egg and peptone or peptone and sodium chloride are absorbed much more slowly. Milk is not advantageous for rectal feeding as large quantities are necessary, and these act as irritants, decomposition also takes place more rapidly. Wine is scarcely to be recommended owing to its reflex irritative action on the small intestine and stomach. Starch is well absorbed, but far too slowly for practical purposes. Fatty substances must be avoided. The most important carbohydrate is sugar (either grape- or cane-sugar). Schonlein found that nearly ninety per cent. of such a solution was absorbed in one hour. It is not advisable to give more than one ounce or one and a half ounce, with ten times the amount of fluid, three times a day. It is always necessary to add opium or to give a suppository of opium. Rectal feeding is not to be recommended in phthisis or diabetes, but can be used with the best results after surgical operations, and especially during the acute stage of gastric ulcer with or without hemorrhage.

First Stage of Labor.

Tweedy (Jour. Obst. and Gyn. Br.Emp., Oct. 1902) says: 1. The first stage of labor begins when the polarity of the uterus is established. 2. Uterine polarity results from an over-stretched condition of the nerves which course through the lower uterine segment and are distributed to the circular muscular fibres of the cervix. The painless contractions and retractions of pregnancy thin out and stretch the segment, and thus ultimately induce polarity. 3. The cervix being fully dilated does not necessarily imply a sufficiently open os to permit of the passage of the fetus. 4. The anterior cervical lip is not easily nipped or incarcerated between the pubes and the descending fetus. The cause of its elongation is due rather to the retraction of the posterior cervical lip and the consequent dragging upward of the os, which cannot sufficiently dilate to permit of the passage of the fetus through it. 5. Such an os will, in the case of primiparæ, rupture almost certainly in order to permit of the commencement of the second stage of labor, an expansion sufficiently large to permit the passage of the greatest diameter of the presenting portion of the fetus. 6. Such a laceration cannot be treated by immediate suture, not alone because of the great edema of the anterior lip, but chiefly for the reason that the posterior lip is taken up and there is therefore nothing to which to stitch it. 7. A multiparous cervix is not always the weakest portion of the uterus. When this is so, a uterine rupture occuring as a consequence of rigid os will be preceeded by none of the usual premonitory symptoms and the tear will be most likely to involve the vagina.

The Treatment of Early Cancer of the Larynx.

Yonge, in the London Lancet, Nov. 15, 1902, emphasises the advantages of operation by thyrotomy in cases of early cancer of the larynx. The writer mentions that in the majority of instances epithelioma is at first intrinsic, taking its origin from a vocal cord or ventricular band, and being confined, often for a considerable time, within the laryngeal cavity. The growth tends but little at first to invade and penetrate the cartilage, and spreads by preference upwards towards the superior aperture, or downwards towards the trachea. Commonly also, although not universally, involvement of the lymphatic glands is very late in making its appearance, not occuring as a rule so long as the growth remains intrinsic. Whatever may be the reason for this peculiar isolation of the larynx, its result is that intra-mural neoplasms are thereby rendered more amenable to operative

treatment than would otherwise be the case. Hence the very great importance of early diagnosis, for it is at this time, when the mischief is still purely local, that the comparatively simple procedure of thyrotomy with excision of the diseased tissue, including the cartilage if necessary, may be employed, often with brilliant results. By this procedure not only may the growth be radically extirpated but a not inconsiderable restoration of the voice may be obtained. The cases given are certainly very striking. They were operated on more than a year ago and so far they are still free from signs of recurrence. In regard to diagnosis the author says that the most characteristic early symptom is a persistent dry hoarseness, especially if occuring in a person over 50 years of age. Such symptoms as pain on swallowing, glandular enlargement, blood-spitting, and cachexia, are really indicative of the later stages of epithelioma of the larynx, and are generally to be regarded rather as contra-indications to the operation. In some cases the removal of a piece of the growth for microscopical examination may be advisable, but if this is done it is desirable that the piece removed should not be too minute. The fragment should include some of the deeper portions of the growth. An important early symptom is a sluggishness in the movement of one or other cord not amounting to paralysis, while the involvement of the arytenoid region by the growth should give rise to suspicion as to its malignant nature. The operation is a simple one in comparison with removal of the larynx.

Suprapubic Prostatectomy.

Taylor, in the Dublin Journal of Medical Science makes the following statements: (1) It is an operation from which good results may be expected in suitable cases. (2) It is doubtful if the operation should, as a rule, be attempted in very old men if their vital powers have reached a low ebb, and in whom it is probable that there is grave organic renal disease associated with chronic cystitis of long standing; (3) in absence of severe cystitis, provided the patient's general health is fairly good, the suprabubic operation which the author describes may be employed without obvious risk; (4) in prostatectomy, as in other operations of an extensive character, it is dersirable that the various steps of the precedure be carried out in as expeditions a manner as possible, consistent, of course, with safety and efficiency; (5) suprapubic prostatectomy, as practised at the present day, aims at enucleation of encapsulated growths and meets all the requirements of the case.

Pyloric Stenosis in Infants

Saunders (Med. Times and Register) says that in the treatment of this disease the indications are: First, the administration of some medicinal agent which shall overcome to a greater or less extent the violent contraction of the pylorus. Among the drugs to be recommended are belladonna, bromides and chloral. Second, the treatment of the secondary gastic irritation. This results from the stagnation of food, and should be treated by washing out the stomach and by giving it rest; rectal feeding should therefore be resorted to from time to time, and for twenty-four hours nothing but water given by the mouth; when food by the mouth is again allowed, the stomach should be washed out occasionally to remove a possible residuum of undigested food. Third, the diet of the child should consist of food which forms no coagulum in the stomach. Milk or any food containing undigested casein will not answer, consequently the mother's milk is usually unsuitable, while the milk of a wet-nurse in advanced lactation will succeed. Whey or peptonized milk, or a mixture of both, is usually the best food. The deficiency in fat should be supplied by cod-liver oil. A very small percentage of cream can be gradually added. To aid the motor power of the stomach by gravity, the infant should be placed on its right side after nursing. The end to be accomplished is hypertrophy of the gastric wall without dilatation, hence the quantity of food should not be large. Gaseous distension of the stomach should by all means be prevented. When the infant fails in spite of rational treatment, surgical intervention must be advised.

Infantile Convulsions.

Moussous and D'Espine in The British Medical Journal, Oct. 4, 1902, calls attention to some important points. One is in reference to the identity of infantile convulsions and epilepsy as originally suggested by Fere—the relatively considerable proportion of epileptics whose seizures began before the age of five years. Berger is quoted as finding twenty per cent. of epileptics whose fits began in infancy. According to Gowers, a large number (12.5 per cent.) of epileptic cases began in the first three years of life, while Osler gives a still larger proportion, namely, 180 out of 480 cases. They point out that a large number of children who suffer from convulsions subsequently become epileptic; and Coutts is quoted as finding 11 out of 85 cases of children having suffered from convulsions becoming epileptic, 29 cases showing other neuroses, the remaining 45 being

unaffected. Dufour has also quoted statistics in support of this hypothesis, and finds that, of 66 cases of infantile convulsions, 15 developed ordinary epilepsy. Bullard and Townsend have ascertained the presence of other nervous phenomena, in 9 out of 19 cases of children aged from five to twelve years having had convulsions, the further development being night terrors, insomnia, and enuresis; and in another series of 30 cases due to the same course, 6 were mentally deficient or epileptic. Their conclusion is that all children suffering from infantile convulsions are predisposed to various nervous affections.

H. Gillet found that 3 children out of 23 cases of infantile convulsions became epileptic, and one hysterical; 17 of these 23 cases had a neuropathic family history. On the other hand, they quote from an examination of their own statistics that infantile convulsions are the expression of a temporary neurotic tendency, and should therefore, be completely separated from cases of true epilepsy, the latter disease being according to this authority, much less common than infantile convulsions or eclampsia, a disease often proving fatal, but which is at the same time capable of being completely cured without leaving any untoward impression on the nervous system,

Contagious Conjunctivitis.

Standish (The Boston Medical and Surgical Journal). The statistics of the dispensary service of the Massachusetts Charitable Eye and Ear Infirmary show that there has been a steady decline in the proportion of cases of trachoma during the past fifteen years. This epoch has been distinguished by the introduction of antiseptic methods and surgical intervention as a substitute for the old routine treatment with caustics and astringents. Corneal complications have become very infrequent. In 1897 the author was instrumental in securing the exclusion of trachomatous emigrants, and since that date the proportion of the disease has sunk to 0.9 per cent. of all eye cases. The best treatment is expression by Prince's forceps, followed by thorough disinfection of the evacuated crypts with sublimate (1 to 50). Antisepsis should also be maintained afterward.

Since 1896 all cases of gonorrheal conjunctivitis have been treated as in-patients only. The mothers were not allowed to accompany the babies who were fed according to a strict schedule, copied from that of the West End Infants' Hospital. The death rate has been very small. Protargol is used locally and has given better results than the old nitrate of silver treatment in preventing corneal implication. In monocular infection the sound is thickly dusted with iodoform and covered with cotton and collodium.

Diphtheritic conjunctivitis is extremely rare, especially when not associated with faucial lesions. In the few cases treated at the Infirmary in recent years the use of antitoxin appeared to be of great benefit, especially in arresting the disease before it could involve the cornea.

The Hydatid Mole.

D. Berry Hart (Brit. Jour. of Obstet. and Gyn., Nov., 1902) says that it has long since been known that deciduoma and malignum follows hydatid mole in about 50 per cent. of all cases. What is the nature of hydatid mole? Is there a malignant and a simple form of the mole? Can we tell histologically what form will develop malignant disease? The questions must be considered from the following standpoints: (1) The structure of the early normal villus; (2) the naked eye and microscopic structure of the hydatid mole; (3) the clinical features of hydatid mole; (4) Its relations to diciduoma malignum; (5) possible nature of hydatid mole and its relation to diciduoma malignum; (6) can we ascertain by microscopic examination the mole, or if its curettage fragments after abortion whether diciduoma will develod ultimately? Normally, the early villus has a double epithelial covering, Langerhans' layer and syncytian. These can absorb dicidual tissue penetrating into it, can pass into blood vessels without coagulating the blood; while normally, their progress is always marked by the condensed layed (Nitabuch's fibrin layer). Finally, both epithelial mantel and connestive tissue core, which approximate the Whartonian jelly in structure, differentiate in the normal placenta, the syncytium gradually thinning, the cells of Langerhans becoming more flattened, while the connective tissue loses its myxomatous type and becomes more fibrous. With hydatid mole there is no fetus present. The membranes alone may be degenerated, the placenta healthy. When we have a fetus, a placenta and a hydatid mole together, the case has been probably a twin, where one of the ova has been fertilized and the other becomes a mole. The absence of a fetus is a great fact, not hitherto appreciated. Hydatid mole is rare, estimates varying from 14 in 10,200 cases (1 in 728, Konig, quoted by Gebbard, and 1 in 2,400, St. Bartholomew's statistics, quoted by Williamson). Hydatid mole has been found in the tube, and also in the paravaginal tissue, the latter is a metastasis, but such rare conditions are only diagnosible by operation. Deciduoma in about half the re-

ported cases is preceded by hydated mole. Virchow termed the mole "myxoma chorii." The author believes that the term diciduoma should be changed to metastatic mole. The proportion of cases of diciduoma malignum following a mole is very low, hence it would be wrong to extirpate the uterus in every case of mole. There is nothing in the microscopic examination of a mole to determine thai it will become a case of deciduoma malignum.

Ipecacuanha Alkaloids.

R. B. Wild, in The London Lancet, September 6, 1902, has an article on this subject. For the purpose of comparison, solutions of the different salts were prepared in water and in different strengths of alcohol. Half of each solution was used for clinical purposes; the other half was set aside and examined from time to time as to its keeping properties and activity. Some of the solutions the author has now kept for several years, and they are still active. It is, however, not adviseable to expose them to a strong light. Cephaelin hydrochloride was soon found to be less suitable for the ordinary use of ipecacuanha in catharrhal conditions and bronchitis than the emetin salts. The emetic action of cephaelin is so powerful that it is very difficult to regulate the dose so as to obtain any effect at all without causing nausea and sickness after a few days' continued use. In one case in an adult he found that even .01 gr. every four hours produced nausea and vomiting within three days. At the same time the effect upon the secretions of the nose and respiratory tract and the depressing action on the pulse were less marked than could be obtained by doses of emetin which caused no sickness. Another reason for preferring emetin to cephaelin was that the salts of the latter appeared to be less stable, since the solutions after a time became of a brownish-yellow color, while those containing emetin and kept under the same conditions were still colorless. The writer has not been able to distinguish any difference in the mode of action or keeping properties of the two salts of emetin which were used; namely, the hydrochloride and the hydrobromide. The solutions of these salts in 20 per cent. alcohol have remained uncolored, clear and active for several years, and there seems no reason to doubt their permanence within reasonable limits of time. Pharmaceutically, in the specimens the author has obtained, the hydrobromide appeared the purer salt, as it was whiter and better crystalized. The solutions first employed were one in 100, and proved too strong for convenience, as the expectorant dose was one to three minims for an adult. Solutions of the strength of one in 1,000 were then prepared, but though satisfactory in their action, the dose was inconveniently large, especially for emetin purposes. The one in 1,000 solution of emetin hydrochloride does not, in the author's experience, quite equal in activity freshly made vinum ipecacuanhæ, which is standardized to one in 1,000 of total alkaloids. During the last two years this authority has used a solution of emetin hydrobromide in 20 per cent. alcohol containing one gr. in each fluid ounce. This soluiion has proved very satisfactory, as it has remained unchanged up to the present time, is very active and reliable, and the dose is of convenient size; namely, for adults, five to 20 minims for expectorant and depressant purposes, and from one to three dr. as an emetic. The author has also used a solution containing one in 100 of morphine hydrochloride and one in 500 of emetin hydrochloride as a sedative and diaphoretic in place of Dover's powder, but has not been entirely satisfied that the action of the solution in equivalent doses is equal to that of the powder. At present comparison is being made between a solution containing one in 500 of emetin hydrochloride and one in seven and one-half of liquid extract of opium and another solution containing one in ten liquid extract of ipecacuanha and one in 100 of morphine hydrochloride. It is still too early to draw any conclusions as to the relative value of the pure alkaloid and crude drug in either case. He says that his clinical opportunities for observing the therapeutical effects of emetics are so few that he has been unable to test sufficiently whether cephaelin possesses any properties (especially absence of circulatory depression) which will enable it to compete successfully with emetin and apomorphine as an emetic. Unless clinical observation reveals such properties there does not seem any special indication for the use of cephaelin, since even the emetic dose of the emetin salt is small enough for all practical purposes.

Diagnosis by Vaginal Examination.

W. Stephenson (Brit. Jour. of Obstet. and Gyn., Nov. 1902), believes that it is in the interest of the patient and medical attendant alike, that one or more vaginal examinations are indispensable. There are risks of omission as well as commission, and inasmuch as we are cognizant of the dangers in examining the patient, care will reduce them to a minimum. The dictum that "all the obstetrician needs to know in normal cases can usually be learned by the abdominal palpation and auscultation," is a false and pernicious teaching. The gen

eral practitioner knows better. From the author's experience, confirmed by the observations of others, the second and fourth positions occur much more frequently than is generally supposed. Possibly the relative frequency may vary in different localities, but it is more possible that a considerable "personal equation" must be taken into consideration in estimating the results. If anyone thinks that he meets with the fourth position (L. O. P.) in little more than one per cent. of cases, it is because he has yet to learn how to accurately diagnose them. Erroneous ideas as to the range of the fingers in the pelvis are traceable in the directions given whereby to diagnose the position of the fetal head. In the instructions the common mistake is to represent it as possible to reach both fontanelles during one examination, and occasionally they are said to be equally accessible. This is not the case.

If one fontanelle be found, the other is certain to be beyond range, or not accessible, being covered by the soft parts or being pressed against the pelvic wall. The second fontanelle can at times be reached, but only by increased pressure. The author directs that, after recognizing the position of the small fontanelle, the finger should then pass along the sagittal suture until it reaches the large fontanelle and recognizes the four sutures that enter it. I should then search for the ears, the mastoid processes and the lateral fontanelles, all of which may be found by following the lambdoid sutures to their terminations. So far as the facility of the mechanism is concerned, it matters little in which position the head may be lying, but it makes a great difference whether the head is flexed or not. Greater facility and precision in diagnosis of all the relations of the head to the pelvis can be attained by (1) keeping a clear distinction between a forced and an ordinary examination; (2) introducing the idea of a normal range of the fingers, and determining what that range is; (3) the use of clearly defined terms, employed always in the same sense. The diagnostic value of the normal range of the fingers depends upon the recognition of the following facts: (1) If the posterior wall and the sacrum be felt, it is a sure evidence that the pelvis is abnormal; (2) when the fingers are fully introduced in the mesial line, the tactile spot corresponds fairly with the central line of the pelvis; it is easy, therefore, to determine the exact position of the os; usually it is central, but at times displaced; (3) when the os is moderately dilated the fontanelles as a rule are not accessible, but the sagittal suture can generally be felt crossing the os; (4) when the os is more dilated, or if the finger be passed within the lip, a fontanelle may be felt, if the smaller the head is flexed; if the larger the head is within range at a time, the smaller indicates flexion, the larger insufficient flexion, or may be extension of the head. The diagnosis of the location of the head is made as follows: First position (L. O. A.)—The small fontanelle is found in the left anterior, the sagittal suture running backward in a right oblique diameter, the large fontanelle is beyond range. The second position (R. O. A.)—The sagittal suture lies in the left oblique diameter, but here it is often difficult to find any suture at all. The third position (L. O. P.)—Sagittal suture in right oblique diameter, but the large fontanelle lies in the left anterior. Insufficient flexion is the cause of delay in this position; should the small fontanelle be within range from the first, the mechanism is as easy as when the occiput is anterior. The fourth position (L. O. P.)—The sagittal suture runs in the left oblique diameter. Till the head is well flexed the small fontanelle in the left posterior is beyond range. With good flexion this may be mistaken for an L. O. A. Error may be avoided by carefully noting the direction of the sagittal suture.

X-Rays as a Diagnostic Agent in Phthisis Pulmonalis.

Gardiner (The Scotish Medical Journal) finds that in the early stages of this disease the results were very gratifying, and the X-rays revealed the condition before ordinary physical methods gave any definite information. Some of the conditions noted in the early stages were loss of normal translucency due to infiltration, not merely congestive. In older persons the lungs are not so clear as in the younger, and naturally in a muscular individual the rays pass less readily, consequently allowances have to be made in these cases. The significance of a faint loss of translucency is undoubtedly difficult to determine, and here experience coupled with a prolonged, careful, and if necessary, repeated examination, is the only safeguard. Alterations in the shape of the chest are more readily determined by this method. Impairment of the diaphragmatic movement is a very important sign and one of the first to be noted. Emphysema gives increased clearness and is very often at the lower part of the chest. Pleurisy, when acute, is only faintly seen, but when chronic gives a homogeneous shadow quite distinct from the mottled character of the phthisical shadow. Pleuritic effusion can be very well observed and its upper margin demarcated.

Shortening the Round Ligaments Per Vaginam.

J. Riddle Goffee (Am. Gynec., Oct., 1902) says that when a displacement actually exists the problem of repairing the damage along rational lines is the proper thing to do. The great principle that Nature has invoked or applied in retaining the organs of the human body in normal position is that of suspension by ligaments. There is no reason to suppose that Nature has made an exception in the case of the uterus, and indeed upon inspection we find that no organ in the body has so many ligaments as the uterus. It is logical to infer, therefore, that when the uterus has gotten out of its normal position, something is wrong with the ligaments, and it is equally logical to assume that to restore the uterus to its normal position and maintain it there the ligaments afford the proper tissue for such a purpose. The utero-sacral ligaments are the most important in supporting the uterus. It is to some malign influence affecting these ligaments that one should seek for the cause of retrodisplacements of the uterus, and, consequently to the repair of them that one must look for a restoration of the function of the uterus to its normal condition. The round ligaments when shortened at the external abdominal ring are efficient in retaining the uterus in its normal position when applied to cases of retrodisplacement uncomplicated by inflammatory processes. In a series of 130 cases treated in this manner, the author has had but two failures and these were due to attempts to modify the routine operation. Ten of these 130 cases have become pregnant and eight have gone onto full term, the pregnancies resulting most comfortably and satisfactury, the uterus remaining in a proper position thereafter. Of the miscarriages, one was a syphilitic negress and in the other the cause could not be learned. In the author's experience the most frequent cause of retrodisplacement is some suppurative disease in the appendages either active, subacute or passive, involving from 75 to 80 per cent. of the cases coming under the author's observation requiring operation for this affection. The Alexander operation is applicable to an extremely small number of cases, hence it becomes necessary to open the peritoneal cavity and the question arises, shall it be done through the vagina or shall it be done through the abdomen. The author prefers the former route. In six years' experience but few cases have arisen in which this could not be said to be the proper route of attacking the trouble.

Note on a Case of Infection by Bacillus Aerogenes Capsulatus, In Which the Organism Was Demonstrated in the Circulating Blood During Life.

Cole reports, in the October Issue of Johns Hopkins Hospital Bulletin, this case: The patient was a young man who was brought to the hospital in a condition of profound shock. He had been run over by a train and both legs had been severed. The collapse was so great that it was considered inadvisable to operate, and no attempt was made to clean up the stumps. In seven hours, however, he had improved so much as to justify operation, but the patient and his friends would not consent. The night after the accident a foul odor was first noticed by the nurse when changing the compresses. The following morning both legs were found to be swollen and discolored up to the thighs. This swelling was found on palpation to be due to subcutaneous emphysema. Coverslips made from the stumps showed a large bacillus resembling morphologically bacillus aerogenes capsulatus. Cultures were also made from the blood of the patient. A rabbit was inoculated with some of the blood, soon afterward he was killed and placed in the incubator. The rest of the blood was divided among twelve tubes of litmus milk. With this, experiments were tried to test the presence of free gas in the blood. None was detected. Autopsy on the rabbit the next morning showed the characteristic lesions produced experimentally by bacillus aerogenes capsulatus. Coverslips made from the various organs and heart's blood showed the presence of an organism morphologically identical with this bacillus. After growing anaerobically for twenty-four hours the cultures made in milk from the patient's blood were found to have given rise to acidification and coagulation of the milk, the upper surface of the clot showing bubbles of gas. Coverslips made from the milk also showed the presence of these bacilli in large numbers. The organism in all these cases stained by Gram and was nonmotile. Thus the identity of the organism with that of bacillus aerogenes capsulatus definitely determined. The cultures made from the lesion when grown anaerobically also gave rise to a pure growth of this organism. No autopsy could be obtained. The writer adds that this case demonstrates that whatever the possibility that this organism may produce gas bubbles in the blood during life, and that it may produce gaseous emboli, it is quite certain that it may exist in the blood without any, or at least with no considerable, gas production.

The Relations Between Acute and Chronic Diseases.

In addressing the Midland Medical Society, Dr. Mitchell Bruce (The Hospital, London, Dec. 18, 1902) drew attention to a very important point in regard to the nature of the diseases from which many people are said to suffer, namely, that what we commonly call "acute disease" is in many instances nothing else than an acute illness in the course of a chronic disease. This is an aspect of the case which is often overlooked in practice, the acute element alone being recognized, while the chronic element—the disease proper, possibly one of great gravity—is ignored. As instances, Dr. Mitchell Bruce mentions the sudden supervention of acute obstruction in the course of a chronic intestinal growth which has gradually developed without a single symptom; the occurrence of hæmoptysis in a patient presenting no other symptom of tuberculosis, but who, for all that, turns out to be affected with that disease; and the occurrence of acute abdominal symptoms in patients suffering from chronic uterine or other pelvic disease.

But cases may occur in which the acute element may take the form of a substantive disease, and in such cases one may readily forget the underlying chronic element. For example, is not acute pleurisy with effusion an "acute disease"? Yet, on apparent recovery, the patient may drift into consumption, and a more careful inquiry into his past history may show reason for believing that he had been tuberculous all along. Acute pleurisy, indeed, would appear to be the disease of all others which is most likely to lead us astray; and not in relation to tuberculosis alone, for besides being the first symptom which attracts attention in certain grave diseases, there is frequently an association between acute affections of the pleura and lungs with chronic diseases within the abdomen, such as carcinoma and hydatid of the liver, gastric ulcer, and appendicitis.

But even when we have determined the existence of a chronic pathological process beneath an acute illness, the considerations which the discovery suggests are not always appreciated in their full practical bearings. An elderly patient, say, is in bed with bronchial catarrh. We recognize that she is thoroughly gouty. But now that she is suffering from an acute disease, do we apply that knowledge? Do we see the application of it? Do we deny her the champagne for which she craves to relieve the distress of the acute illness from which she is suffering? The influence of the discovery of an underlying chronic illness upon the prognosis and often upon the treatment of an acute attack is sufficiently obvious, and may be well illustrated by what happens often enough in kidney disease. The sudden appearance of albuminuria with general anasarca and other symptoms may often be traced to chronic nephritis with a fresh renal congestion instead of to the acute nephritis which the symptoms at first sight seem to suggest. But the connection is readily missed. Yet how different an aspect does it not give both to prognosis and to treatment, for in this case, as in that of a fresh deposit in an old case of quiescent and may be forgotton tuberculosis, however favorable the outcome of the acute illness may be, the chronic substratum will remain a source of possible mischief in the future.

It is only by thus recognizing the relations between acute and chronic diseases that we can understand the true nature of many of the former. Acute illness when looked at by itself is put down to chill, exhaustion, injury, and other "causes" which, so far from being the real origin of the disease are but exciting circumstances which without the underlying cause would have been harmless. We must then recognize that certain so-called "acute diseases" are but phases of a chronic and abiding condition. For example, hæmoptysis, pleurisy, fistula in ano, certain varieties of peritonitis, glandular enlargements, and even the occurrence of simple continued fever with no discoverable location, are often but phases of a tuberculous process, of the existence of which they should serve as danger signals. And so with many other conditions.

Gunshot Wounds of the Abdomen from a Military Standpoint.

LaGarde (Medical News, Nov. 15, 1902) states that penetrating gunshot wounds of the abdomen, under the expectant plan of treatment, were the most fatal of the regional wounds in both military and civil practice; the mortality ranging between 95 and 98 %. Under a wise selection of cases and employment of expert technic in operating, the statistics of fatality have been reduced by nearly one-half in civil hospitals, while on account of unavoidable causes the death-rate in military practice in the field still remains very high. In civil hospitals, where one finds all the modern conveniences and comforts to promote the well-being of the wounded, and where the surgeon, almost from the moment of the receipt of the injury, holds absolute sway over his surroundings, the mortality, as shown by Grant's statistics of operative cases, amounts to 52.5 per cent. in a series of 253 cases. Morton, of Philadelphia, reports

138 deaths after operation, or a mortality of 58.9 per cent. out of 234 cases collected from various sources in this country and Europe. Coley's statistics show a death-rate of 53.8 per cent. in a series of 39 cases operated upon during the first 12 hours after injury; and a mortality of 77.2 per cent. in 22 cases operated upon at a later period. In military practice in the conditions that obtain in active campaign, the mortality, as already stated, has been very large, the death-rate in the Crimea for the French and English troops being respectively 91.7 per cent. and 92.6 per cent. In our civil war the fatality reach 90 per cent. When we remember that in many of those who are thus reported to have recovered the abdomen was in reality not perforated, we are forced to the conclusion that the high mortality given would probably have to be made still higher if it had been possible to consider only perforated cases.

The encouraging results obtained in civil hospitals gave the military surgeon hope that his results might be nearly as good. This hope, as the sequel shows, was not realized. Of 116 cases reported in the Annual Report of the surgeon general of the army for 1900—cases which occured in the Spanish-American war and during the Philippine insurrection—there were 81 deaths, or a mortality of 70 per cent. The evidence of perforation was doubtless based upon the position of the apertures and the course of the ball in a straight line between these. It is fair to state that of the 30 per cent. who recovered the large majority sustained no injury to the intestine. The inexperiences of Makin in South Africa lead him to the belief that perforating wounds of the small intestine are very fatal—every patient in whom the condition was certainly diagnosed died. As far as prognosis is concerned, a gunshot wound of the small intestine, without operative interference, is as fatal to-day on the field of battle as it was during the Crimean war. Some rare cases of recovery with few symptoms, cited by Makin, make it difficult to conceive how a projectile could plough its way through the abdomen from one flank to the other without cutting the intestine. Several cases of this kind were seen at Siboney from the line near Santiago, and they go to show that the small-caliber bullet is likely at times to traverse the intestinal area without inflicting injury of a fatal kind. Aside from the small sectional area of the bullet which would favor such an occurrence, it has been suggested that the intestinal lesion is apt to be minimized by fasting. The men before Santiago had been on scant rations for one week, and the remarkable recoveries among abdominal wounds at the time attributed to the empty condition of the alimentary canal.

Suprarenal Liquid With Chloretone In Diseases of the Ear and Nose.

Herron (Southern Practitioner, July, 1902) believes that purulent otitis media if seen in time can be relieved by suprarenal liquid and chloretone. In one of the cases reported the ear was syringed with a hot boric acid solution. Ten drops of suprarenal liquid with chloretone were then instilled, and the patient was requested to hold his head so as to retain the medicament for ten minutes. The pain ceased in about thirty minutes. This treatment was continued for about ten days, at which time the pus ceased, the patient being about well.

A large abscess was found to have burst into the external meatus of the right ear of a man of forty-five, a short distance from the drum. There was a free discharge of pus. Because of the location of the abscess, there was added three grains of cocaine to two drachms of suprarenal liquid with chloretone. A piece of cotton was saturated and placed over the part. This treatment was continued every three hours. The patient said the next morning that he had been free from pain since the first application.

Suprarenal liquid is also excellent in nasal operations. It has been applied to the septum; and portions have been removed from it without hemorrhage. It has been used both locally and internally with some degree of satisfaction in hay-fever.

The writer has not performed paracentesis for some time, because with the use of this remedy he has gotten rid of the inflammation before an operation was necessary.

The Treatment of Pneumonia.

Duckworth (British Medical Journal, November 15th).—The treatment of pneumonia is strictly the treatment of the patient suffering from it. It is a simple disease in children; it is not a dangerous disease in the young or in those who have been previously healthy; it is more dangerous to those who have reached forty years of age: it is extremely dangerous in the old, and absolutely fatal in the drunkard. A warm bed and careful nursing are essential parts of the treatment. The appetite is lost, and there is no object in forcing food; the patients usually do well on a fever diet, milk and beef tea. A temperature of 102 deg. or 103 deg. F. appears to be a necessary part of the disease, and no steps should be taken to check it so long as it keeps within limits. But anything over 105 deg. F. may be called hyperpyrexia and demands

JUST NOW

when the debilitated and poorly nourished are subject to coughs and colds, the remedy of most value is

GRAY'S Glycerine TONIC Comp.

Its specific action on the respiratory organs is second only to its unique value in malnutrition and general debility

THE PURDUE FREDERICK CO.
No. 15 Murray Street, New York

PRUNIER'S

HYPERPHOSPHINE

REGISTERED

$(C_3\ H_7\ CaPhO_6,\ 2H_2\ O)$

Pure Phosphoglycerate of Lime

Prepared according to the original process of MM. Portes and Prunier.

INDICATIONS.—In all cases of weakness by Anæmia, Neurasthenia, Headache, Neuralgia, Nervous Cough, General Debility.

HYPERPHOSPHINE *is non-toxic*

HYPERPHOSPHINE *is supplied in three forms:*
Granulated, Syrup, *and* ***Wafer-Cachets***

When prescribing, specify which of the above is wanted.

E. FOUGERA & CO., Sole Agents, New York

attention. Sponging with ice water, the use of a cradle under the bed clothes to which buckets of ice are suspended, or ice bags, are usually effectual. The best drug to use is quinine in five grain doses every two or three hours. A simple fever mixture of potassium citrate and ammonium acetate is often of service. Delirium is usually seen in elderly alcoholic patients, whose cases often prove fatal. Insomnia, especially if it occurs toward the crisis, is a very grave matter. The author advises the use of morphine in small doses in those cases in which there is no involvement of the kidneys. Failure of heart power is a serious thing, and manifests itself either by cyanosis or by irregularity and weakness of the pulse. For the former nothing is better than moderate blood-letting; for the latter strychnine given hypodermically, or musk, which is of the greatest value in pneumonia. As regards alcohol, some patients do not require it. In the majority of cases from two to four ounces of brandy are sufficient in the course of each day. In winter time hot poultices may be applied to the affected side; in summer, cotton wool sprinkled with spirits of camphor. Dry pleurisy is a constant accompaniment or part of pneumonia, and the pain of it may be relieved by the application of two or three leeches.

Effect of Climate on Laryngeal Tuberculosis.

Levy (Laryngoscope) has undertaken an analysis of a series of 205 cases, full records of which have been preserved.

Of the number having both throat and lung lesions, 11 originated in Colorado or allied climates, number originating elsewhere, 152; and the number in which lung lesion originated elsewhere, and throat lesion in Colorado, 37.

Of the cases having only throat lesions, one originated in Colorado, and four originated elsewhere.

If it can be shown that throat lesions develop more rapidly in high altitudes than elsewhere, the opinion of some, that these localities are injurious, would be borne out. Dr. Levy's records, however, would seem to controvert that idea, showing that a residence in a high altitude delayed rather than hastened the appearance of the laryngeal involvement, which as a rule shows, either early or late, in fully thirty per cent. of all cases of tuberculosis. The author's table shows:

1. That in cases developing both lung and throat lesions in Colorado, the throat lesion manifests itself forty-eight weeks later than in those originating elsewhere.

2. That in cases developing lung lesions elsewhere and throat lesions in Colorado, the throat lesion manifests itself 62.3 weeks later than in those originating elsewhere.

It would therefore seem that, so far as the development of laryngeal tuberculosis is concerned, the effect of high altitudes is to retard it by more than one year.

Some Observations upon the Value of the Phloridzin Test for Estimating the Functional Capacity of the Kidneys. Renal Sufficiency.

Watson and Bailey (Boston Medical and Surgical Journal, December 4th). The technics of the phloridzin test is simple. The patient is given a subcutaneous injection of a sterile solution of equal parts of phloridzin and Na_2CO_3. Five miligrammes of phloridzin are used for persons of moderate size and weight, and twice this quantity for persons of large size and unusual weight. Half an hour after the administration of the drug, sugar should appear in the urine if there is normal sufficiency of renal function. Serious disease of the kidneys is indicated if no sugar is present, and if its appearance is delayed or only a small percentage is found, it is taken as an indication of renal insufficiency. The authors of the paper have carried out a considerable number of experiments of their own, and from them they draw the following conclusions: (1) That the average quantity of sugar eliminated in the first half hour after the administration of the drug subcutaneously in the doses stated, and when the kidneys are normal, is about 45 per cent.; and that the first half-hour's elimination is greater than the second half-hour's by about .06 per cent. (2) When renal disease exists, the quantity of sugar eliminated in the first half-hour is, for a series of cases, about one-half as much as when the kidneys are normal, and there is but very little more eliminated in the first half-hour than in the second. (3) The effect of ether anæsthesia is to stimulate the kidneys to greater functional activity, but the renal function is not, if gauged by the phloridzin test, in any way impaired by the anæsthesia. This is true of the kidneys when normal only; when they are diseased, ether fails to stimulate their function, and there is, moreover, relatively to normal kidneys, much less sugar eliminated in the first than in the second half hour after phloridzin has been given. On the whole the phloridzin test is too variable to be trustworthy, and the authors of the paper do not urge its adoption in preference to the former methods of urinary analysis for estimating the functional capacity of the kidneys.

Therapeutic Strides

BEECH
(Fagus Sylvatica L.)
Source of
Creosote, Guaiacol
and Thiocol Roche

From Bark Tea to Quinine

From Creosote to Thiocol Roche

THESE ARE ADVANCES THAT TELL IN BEHALF OF MEDICAL SUCCESS

"Thiocol Roche will displace all other creosote-guaiacol derivatives."—Dr. J. Braun, in *Klin. ther. Woch.*

"No other medicament produces such striking results."—Prof. Maramaldi, in *Gazz. Internaz. de Med. Prat.*

"Clinical experience is demonstrating its great value in the treatment of TUBERCULOSIS."—Abs. *Jour. Amer. Med. Assoc.*

"Excels all other guaiacol preparations and all compounds of creosote."—Dr. Rossbach in *Ther. Monatsh.*

"In severe WINTER COUGH it has relieved the expectoration, soothed the cough and assisted the appetite."—Dr. J. Moir, in *Therapist.*

DOSE: Five to 20 grains 3 times a day of the powder. One to 4 tablets (5 grn.) 3 times a day. Sirolin (Syr. Thiocol Roche) 1 to 3 teaspoonfuls 3 times a day.

WE SEND INTERESTING REPORTS ON REQUEST

MERCK & CO. University Place NEW YORK

The Genesis of Glioma Retinae in Neuroglia.

Pusey (Bulletin, Johns Hopkins Hospital) discusses some of the conflicting opinions held by various authorities on this subject, and gives the results of the study of a specimen stained by Mallory's neuroglia method, which was taken from a girl of four and a half years. The principal conclusion to be arrived at from the structure of this specimen is that this is a retina in which the neuroglia tissue has been developed at the expense, one may say, of the other tissues. In proof of this are the facts: (1) That the ordinary nervous-tissue elements of the retina, the rod and cone cells, the layer of bipolar cells, the ganglion cells, are either entirely absent or present in very scanty numbers. (3) The neuroglia tissue is greatly increased, as shown by Mallory's stain. Along the inner surface of the internal limiting membrane, and growing through it from the tissue outside, which in this eye represents altered retina, are cells with characteristic large granular nuclei and with varying amounts of cytoplasm, some of them containing pigment, and interlaced among these cells are long neuroglia fibers. In other words, neuroglia has invaded the cavity of the vitreous. That these cells constitute a new growth is plain also from the fact that they have invaded and destroyed the crystalline lens. Composed as it is of neuroglia, the tumor is a glioma. From the staining reaction with Mallory's neuroglia stain, there seems to be no question of the neuroglia character of the rosettes. The results from the study of this specimen certainly favor the retention for these retinal tumors of the term first suggested by Virchow, and so long accepted—glioma retinæ.

Some Points on the Etiology of Tuberculosis.

Latham, in the Edinburgh Medical Journal concludes a valuable paper as follows: (1) Hereditary tuberculosis is so rare as to be a negligible factor; (2) it is proved that tuberculosis parents hand down to their children tissues which are especially susceptible to tuberculosis; (3) tuberculosis always results from a pre-existing case of the disease, and the bacilli are conveyed by the mouth spray; by the expectoration or other discharge, and by means of food stuffs, more especially milk; (4) it is improbable that infection often takes place from air respired through the nasal passages; (5) the tubercle bacilli, whether the infection is through the air or food, enter the new host by the mouth in the majority of cases; (6) the bacilli may then be destroyed by the natural defensive actions of the body in the respiratory and alimentary tracts, or they may pass into various parts of the body in the following ways: (*a*) By direct inhalation into the alveoli of the lungs; (*b*) by being brought in contact with the mucous membrane of the parts common to the respiratory and alimentary tracts, such as the tonsils, and then by passing through these mucous membranes, either with or without local changes, to the lymphatic vessels, and so to the cervical, tracheal, bronchial or other glands. From these glands the bacilli pass either: (1) By direct continuity; (2) by the lymphatic vessels to neighboring glands; (3) by some mechanism against the lymphatic stream; (4) by the bloodserum, owing to direct ulceration into the blood vessel; (*c*) by being carried to the stomach and intestines; (7) the spread of tuberculosis within the human body is not by the bloodstream, save when generalized miliary tuberculosis is found; (8) the spread of tuberculosis within the human body is by the lymphatic vessels and lymphatic lacunæ.

A Clinical Study of Diplopia.

Fergus, in the Glasgow Medical Journal, mentions the following facts: (1) When the diplopia is crossed, there is, except in very special cases, divergence; when it is homonymous, there is convergence. (2) The diplopia is homonymous, and the apparent distance between the true and the false images appears to increase, when the candle is carried toward the side of the paralyzed muscle. (3) In paralysis of an external rectus muscle, the diplopia is homonymous, and the head is rotated toward the side of the paralyzed muscle. (4) In paralysis of the superior oblique, the diplopia is chiefly vertical, the distance between the true and the false images increases as the test object is moved downward, the images are homonymous, and the top of the false image is inclined toward the true one. (5) In paralysis of an internal rectus the diplopia is crossed, the images are on the same level or nearly so, the distance between them increases as the test object is carried from the median line toward the healthy side, and the patient rotates his chin to this side so as to diminish or get rid of the diplopia. (6) In paralysis of the superior rectus the diplopia is vertical, it is slightly crossed, and the upper part of the false image is directed away from the true one. (7) In paralysis of the inferior rectus the diplopia is vertical. The images are slightly crossed, and the top of the false image points toward the true one.

LISTERINE

The standard antiseptic for both internal and external use.

Non-Toxic, Non-Irritant, Non-Escharotic—Absolutely Safe, Agreeable and Convenient.

LISTERINE is taken as the standard of antiseptic preparations.

The imitators all say, "It is something like LISTERINE."

BECAUSE of its intrinsic antiseptic value and unvariable uniformity, LISTERINE may be relied upon to make and maintain surgically clean—aseptic—all living tissues.

IT IS AN EXCELLENT and very effective means of conveying to the innermost recesses and folds of the mucous membranes, that mild and efficient mineral antiseptic, boracic acid, which it holds in perfect solution; and whilst there is no possibility of poisonous effect through the absorption of LISTERINE, its power to neutralize the products of putrefact on (thus preventing septic absorption) has been most satisfactorily determined.

A special pamphlet on catarrhal disorders may be had on application.

For diseases of the uric acid diathesis:

LAMBERT'S LITHIATED HYDRANGEA

A remedy of acknowledged value in the treatment of all diseases of the urinary system and of especial utility in the train of evil effects arising from a uric acid diathesis. A pamphlet of "Clippings" of editorials on this subject may be had by addressing:

LAMBERT PHARMACAL COMPANY, - - ST. LOUIS.

Be assured of getting Listerine by purchasing an original package.

An Observation Showing that the Flagella of the Malarial Parasite are Fertilizing Elements.

Moore in the Johns Hopkins Hospital Reports, Oct. 1902, relates his observation that he has made bearing upon this subject. In studying the blood of an estivo-autumnal case, he saw both a granular and a non-granular body quite near together, within the field of the microscope. In the hyaline body the pigment was soon in active motion and four active flagella were quickly thrust out. The first one to free itself plunged around until it happened to come into contact with the granular body. The pigment of the latter was arranged like a wreath. After several efforts the flagellum entered this body. The ring shape of the pigment was quickly destroyed. The second flagellum that freed itself moved across the field to the granular body as if with a purpose. After many efforts to enter the body without success, it wiggled away. The other flagella freed themselves, but were lost to sight among the red blood-cells. For twenty or thirty minutes the fertilized body was watched, but nothing further was noticed aside from slight changes in its shape and the distribution of its pigment. The body which was flagellated soon became inactive and showed signs of disorganization, while the other body became slightly swollen, but showed no signs of disintegration.

Varicose Veins.

Bennett classes this condition (London Medical Lancet, Nov. 22, 1902) under these heads: 1. Congenital; 2, acquired; 3, intermediate. The first includes the vast majority of cases, though they may not have the affection noticeable from birth. By acquired varix the writer understands cases that come on through accident or otherwise, in veins that are primarily normal, but he doubts whether this ever occurs after adult life has been fully reached. The author suggests that the tendency to varix is increasing in young girls on account of the habit of heavy physical exercise in the periods of rapid growth. By intermediate varix he means cases where the congenital defect is increased by injury or strain such as might give rise to acquired varix. The localized varices of the limbs are generally arranged in three main areas, along the line of the internal and external saphena veins and along the outer side and back of the the thigh. These may exist singly or in combination with each other. The symptoms are largely pain, a feeling of tension and weight, and edema. The worst appearing cases often cause very little trouble. It rarely becomes obvious before puberty and in congenital cases the appearance of the varix is always prior to the occurrence of the symptoms arising from it. In the acquired form, on the other hand, the feeling of discomfort and pain generally precede the physical manifestations and call attention to them. The periods of spontaneous increase usually occur at or soon after puberty, between the ages of 20 and 25, about the ages of 30 and 35 years, and between 45 and 50 years, If it shows no sign of increase at 50 years, it rarely occurs spontaneously afterwards. After 60 years there is a tendency for the normal vessels to diminish in size and trouble rarely arises in connection with these after that age unless from thrombosis, injury or some other similar cause. The treatment is either non-operative or surgical. The first Bennett classes under hygienic, including careful avoidance of constipation, the use of careful feeding, close-fitting, well-ventilated underclothing on the limbs, and avoidance of extremes in temperature in the daily bath. Bennett thinks the tepid bath is better than the very cold one. Manual treatment means massage and this may completely check the varix if applied early enough. The rubbing of the varicose parts with alcohol night and morning is excellent. The method of application is applying it only over the varicose vessels and with only smooth rubbing. During the first part of the massage the limbs should be dependent or flat, and in the second they should be be vertical. The association of electricity should be in the form of the electric bath with massage, which is very advantageous, but it is not easily available. The mechanical support he prefers is a well-applied porous bandage; its overuse and misuse is likely to do harm. The operative treatment requires a period of rest after the operation, of at least three weeks before the patient is allowed to make any attempt to walk and at least six weeks or two months before very active exercise is undertaken. The author thinks the only way of mitigating the condition is the removal of a portion of the long saphena high up in the thigh, but never below the point in which the large posterior tributary of the inner and back part of the thigh joints the internal saphena. The improvement is more rapid if three inches of the saphina are removed immediately below the knee, but it is not absolutely necessary.

Acute Nervous Diseases.

Barr (British Medical Journal, Nov. 22, 1902) calls attention to a class of cases which used to be called serous apoplexy, a name which has now gone out of date, but which he would like to see retained. These cases closely resemble cerebral hemorrhage, but the paralysis is rarely so absolute and

In CARDIAC and GENERAL MUSCULAR RELAXATION,
due to Functional Cardiac and Circulatory Disturbances,

CACTINA PILLETS

Has Many Advantages Over Other Heart Stimulants.

IT HAS NO CUMULATIVE ACTION, AND IS ABSOLUTELY SAFE AND RELIABLE.

Each pillet represents one one-hundredth of a grain CACTINA, the active proximate principle of CEREUS GRANDIFLORA.

DOSE: One to four pillets three times a day.

Samples mailed to physicians only.

THE CHIEF CHARACTERISTICS OF THE PHYSIOLOGICAL ACTION OF

SENG

Is to promote Normal Digestion by encouraging the flow of Digestive Fluids.
It is the Modern and Most Successful Treatment for
INDIGESTION.

A PALATABLE PREPARATION OF PANAX SCHINSENG IN AN AROMATIC ESSENCE.

DOSE: One to two teaspoonfuls three times a day.

A full size bottle, for trial, to physicians who will pay express charges.

SULTAN DRUG COMPANY, St. Louis, Mo., U. S. A.

Samples and Literature supplied by

PHARMACEUTICAL PRODUCTS
BAYER
BAYER
40 Stone St. FARBENFABRIKEN of ELBERFELD CO. New York.

AGURIN
The Non-Irritating Diuretic.

EPICARIN
The Non-Toxic Dermal Parasiticide.

SALOQUININE
The Tasteless and Improved Quinine.

HEDONAL
The Promoter of Natural Sleep.

FERRO-SOMATOSE
The Ferruginous Nutrient and Tonic.

PROTARGOL
Antigonorrheal, Antiseptic

ASPIRIN
The Best Salicylate.

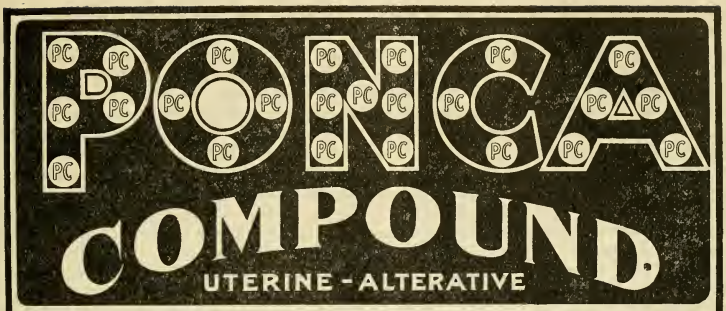
the onset is more gradual like that of thrombosis, being as it is a serous congestion. These cases also occur in different clases, the apoplectic attacks occur in overfed persons, those with Bright's disease and high blood pressure with atheromatous vessels, while the other type occurs in the underfed and overworked individual with low blood pressure. The treatment of the two conditions is exactly opposite. In the cerebral hemorrhage you must reduce the blood pressure, while in the other you must raise the general blood pressure and increase the velocity of the circulation. The best drugs are caffein and digitalis. The associations and causal conditions should receive attention. A sinapism and fly blister to the nape of the neck may do good. The later treatment consists of mental and bodily rest, good food and a long holiday. A case is reported. He also reports a case of paraplegia with cystitis which had in its symptoms resemblance to Landry's paralysis, but examination of the cerebrospinal fluid showed the presence of staphylococci. It would seem as if the patient's low vitality did not afford sufficient reaction to establish a meningitis, but the toxins had a paralytic effect on the motor centers of the cord. In a severe case of cerebrospinal meningitis in the same ward lumbar puncture showed staphylococci in the cerebrospinal fluid and no other organism. The patient whose case is reported was cured by the prone posture and an ice bag to the spine. His cold extremities were wrapped in cotton wool, quinin, nitroglycerin and urotropin administered, and the bladder washed out with a chinosol solution for the cystitis. Rest and a liberal diet completed the cure.

Mercuric Cataphoresis in Cancer.

Massey (International Medical Magazine, Nov. 1902) gives his method, consisting in injection of mercury in the form of ordinary quicksilver into the growth or held within it in union, with a solid electrode of zinc, and being made the anode of the current is attacked by the electrolytic process and the resulting nascent compound, a soluble oxychlorid of mercury and zinc, is diffused throughout the growth rapidly, the patient being under a local or general anesthetic. The result is that the radiating chemicals unite with the protoplasm of the cells and other elements of the growth, producing a rapidly enlarging area of necrosis, which is most effective in the degenerating tissues. The opposite pole being on a distant part of the body, the lines of diffusion will tend to follow the so-called roots of the cancer to their extremities. The writer finds a current strength of 500 to 800 milliamperes, more or less, applied for sixty minutes, most effective, and considers that the method has decided advantages over the knife. Its disadvantages are the cost of the paraphernalia and the necessity of a knowledge of medical electrophysics in the operator. It also has disadvantages as compared with the X-ray in requiring anesthesia and of producing a wound at the site of the growth, but this is readily curable, differing in this respect from the X-ray wounds. The knife is still preferable in operative growths of internal organs capable of removal, and highly malignant sarcomas of the extremities in which it is possible to amputate the limb far above the site of the disease, but the employment of cataphoresis is better where it is inadvisable to remove extensive contiguous tracts, which can also be sterilized by this method. The X-ray should be used in external growths too extensive for quick eradication by mercuric cataphoresis, in inoperable growths within the chest or abdomen and in general carcinomatosis where other methods fail. Dr. Massey has employed the method in 60 unselected cases where it was begun generally as a forlorn hope, and has had 18 cures, 7 of them having passed the three year limit.

The Use of the Stomach-Tube.

Dr. Henry W. Bettman (Cincinnati Lancet Clinic) says that the two most important functions of the stomach are: (1) to act as a reservior for the mixture, partial digestion and sterilization of food; (2) to act as a pump to force the prepared chyme into the duodenum. Disturbance of the motor function, from a clinical standpoint, is a far more serious matter than impairment of the secretory function; but the stomach tube aids us to determine both. "Nothing can be simpler than to determine whether the motor power of the stomach is affected or not. In a healthy stomach after an ordinary meal food begins to enter the duodenum within a few minutes after the first mouthful is taken. At regular intervals, approximately of ten seconds each, the pyloric end pumps the chyme in little jets into the duodenum, and this process is continued until the stomach is entirely empty. We expect a healthy stomach to be empty one and one-half to two hours after a test breakfast of bread and water, four to five hours after a slight meal, and six to seven hours after a hearty meal. The fasting morning stomach should always be empty." By introducing the stomach-tube at the times when the stomach should have completed its period of activity we can easily determine the condition of the motor function. By examining the stomach con-



**RELIEVES CONGESTIONS, ENCOURAGES PERISTALSIS,
REMOVES SPASMODIC CONDITIONS,
REGULATES THE VASCULAR SUPPLY.**

FOR ALL FUNCTIONAL UTERINE AND OVARIAN DISORDERS

THE ORIGINAL PACKAGE OF PONCA COMPOUND CONTAINS 100 5 GR. TABLETS MAILED TO PHYSICIANS ON RECEIPT OF $1.00.

SAMPLES AND LITERATURE ON APPLICATION. MELLIER DRUG COMPANY, ST. LOUIS.

SYRUPUS ROBORANS.

SYRUP HYPOPHOSPHITES COMP. WITH QUININE. STRYCHNINE AND MANGANESE.

1-128 grain Strychnine to teaspoonful.

The pharmaceutical skill displayed in making this favorite compound more stable and agreeable, deserves the approbation of the profession.

Syrupus Roborans as a Tonic during Convalescence has no Equal.

As a nerve stimulant and restorative in waisting and debilitating diseases, as a constructive agent in Insomnia, Pneumonia, Bronchial Asthma, Marasmus, Strumous Diseases and General Debility, this compound has no superior. Owing to the solubility of the salts, additions can be made of Fowler's solution, Syrup Iod. Iron, Iod Potass, etc., giving the advantages of these remedies without interfering with the stability of the preparation. SYRUPUS ROBORANS is in perfect solution, and will keep in any climate.

DR. T. H. STUCKY writes: "In a case of Tertiary Syphilis, very anemic, the Iodides were revolting to the stomach, being vomited when taken. Syrupus Roborans given three weeks with improvement, when the Iodides Potassium was retained with good results."

DR. W. O. ROBERTS says: "In cases convalescing from 'La Grippe Syrupus Roboran has no equal.

PETER'S PEPTIC ESSENCE COMP.

A POWERFUL DIGESTIVE FLUID IN PALATABLE FORM.

Please note that Essence and Elixir Pepsin contain only Pepsin, while in Peter's Peptic Essence we have all the digestive ferments. These are preserved in solutions with C. P. Glycerine in a manner retaining their full therapeutic value, which is exerted in and beyond the stomach.

It is a stomachic Tonic, and relieves Indigestion. Flatulency, and has the remarkable property of arresting vomiting during pregnancy. It is a remedy of great value in Gastralgia, Cholera Infantum and Intestinal derangements, especially those of an inflammatory character. For nursing mothers and teething children it has no superior. Besides mere digestive properties, Pepsin and Pancreatine have powerful soothing and sedative effects, and are therefore indicated in all gastric and intestinal derangements, and especially in inflammatory conditions. It is perfectly miscible with any appropriate medium. In certain cases the addition of Tr. Nux Vomica gives much satisfaction. Please write for Peter's Peptic Essence and you will not be disappointed. These preparations are held strictly in the hands of the medical profession, never having been advertised as popular remedies, nor put up with wrappers and circulars expatiating on the use of the Hypophosphites or Digestive, thus educating the public in the use of these valuable compounds.

Samples Sent upon Application. **Express Charges at your Expense.**

For Sale by **ARTHUR PETER & CO.**

all Wholesale Druggists. **LOUISVILLE, KENTUCKY.**

tents chemically we can deterine the character of its secretory function.

He does not claim that it is necessary to make these examinations in every case. In many instances the cause of the disorder is apparent and it will disappear after the habits of the patient before the most important meal will meet all indications.

"The stomach-tube, like all other remedial agents, has its limitations. It rarely does good in case of cancer of the stomach; it may do harm in cases of ulcer. In cases of nervous dyspepsia it often transforms the patient into a gastric hypochondriac, a most unfortunate condition, and therefore in most cases of this nature its use is contraindicated."

Prostatic Hypertrophy.

Bouffeur (Annals of Surgery) reviews the advantages of the suprapubic transvesical cauterization of the prostate over the Bottini operation and concludes that it admits of an accurate anatomico-pathological diagnosis which is fundamentally essential to intelligent treatment. The cauterization can be made with the galvanocautery or the more commonly possessed Paquelin cautery with ease, rapidity, and safety. A curved cautery-blade will greatly facilitate the procedure. The incision can be accurately placed. We can see the field of operation and the structures being cauterized. The length and depth of the incision can be regulated to meet the requirements in the particular condition found. The temperature of the blade is under direct ocular observation. The time of application can be regulated so as to insure destruction of the tissue, and if the Paquelin is used it can be applied with sufficient force and time to make the incision, regardless of the density of the tissue. There is no danger from bending of the cautery. If hæmorrhage does occur, its location can be definitely determined and measures for its control intelligently and effectively employed, as has been demonstrated by Eisendrath. It is applicable to all forms of enlargement projecting into the bladder, and particularly so in the removal of pedunculated lobes or valve formations. A partial prostatectomy followed by cauterization would be an ideal procedure for such conditions. It is applicable in all cases regardless of urethral obstruction. Such obstructions can frequently be readily removed from within. It admits of the removal of a calculus or the direct treatment of an ulcer. It also admits of suprapubic drainage if the cystitis seems to require it, or if the urethra is impermeable from within. It is not as likely to be followed by infection, phlebitis, sepsis, etc., as the uncertain urethral operation.

Fibroma of the Ovary.

John S. Fairbairn (Jour. Obstet. and Gyn. Brit. Emp., August, 1902) says (1) The whole ovary may be converted into a hard tumor, maintaining to some degree its original shape, but bearing no recognizable portion of the original structure. This is an unusual occurrence. Attention may be directed to the fact that this complete fibrous transformation does not depend upon the size to which the tumor has attained. It takes place in small as well as large tumors, and does not depend upon the growths having reached a size sufficient to destroy the ovary. It is difficult to understand why the pathologic change should affect the whole stroma from the first, as this is more like an inflammatory fibrotic change than a new growth. (2) The growth forms a hard tumor within the ovary, which it spreads over its outer surface, so that it remains more or less encapsulated within the organ. The amount of ovarian tissue remaining appears to depend rather upon the position of the growth in the ovary than on the size the growth has attained. With the increase in size of the tumor the capsule tends to become more thinned out and less separable, so that the encapsulation may be recognizable only near the attachment of the ovary. Virchow has stated that the growth often originates in the outer end of the ovary. (3) The new growth forms a pedunculated tumor attached by a pedicle to the ovary. Some of these growths may be from the ovarian ligament. Keiffer suggests that fibroma of the ovary may follow part of their development in the center of the gland and then be extended toward the periphery, and become pedunculated like subperitoneal fibroids of the uterus. The age limit is a wide one varying between twenty-seven and sixty-seven. The general health is not usually affected. Trouble with micturition may occur due to pressure upon the bladder, if the tumor be large. The same condition may cause pain. The menstrual function may be interfered with by prolongation of the period or increase in the flow. This is not the rule.

Sciatica and Its Treatment.

Felt (Polyclinic) says that hypodermic injections of large doses of atropin into the limb affected with sciatica will often relieve where other methods have failed. The method he usually follows is to dissolve 1 gr. of atropin in 100 drops of water, and the dosage is then gauged by the number of drops. Great care must be taken in the dropping, and the dropper must always be held in a perpendicular position, for if this precaution is not taken it will be found

JOHN G. SAXE

SAID:

"When a man is going down hill everything seems greased for the occasion."

TRUE

When you have case after case that positively hangs fire, and a little forethought would have suggested for Pneumonia and every type of Inflammation

ANTIPHLOGISTINE

Just notice that the practitioner prescribing Antiphlogistine firmly believes the old adage

"Laugh and the world laughs with you, weep and you weep alone."

The Denver Chemical Mfg. Co.

Branch:
London, Eng.

New York

that the drops will differ in size and the patient will either get too much or too little of the drug. Three drops is the initial dose, and the head symptoms of the atropin must be allowed to disappear before it is repeated. However, the second injection can be usually given in about 18 hours. These injections should be given at night, and the patient should be carefully watched. The number of cases that were treated by this method was 29, and of these 22 were permanently cured. In 2, 2 doses of 3 drops were given; in 2 more, 3 doses of 3 drops; in 6, 3 doses of 5 drops; 5 had 4 doses, the first of 4 drops while the other 3 were 5 drops; 3 had 6 doses, the first 4 drops, the next 5 drops, and the remaining 4 were 6 drops; 2 received 7 doses, the first 2 were 5 drops, the other 5 were 6 drops; 1 required 9 doses, the last 4 of 9 drops each, the first of 3, the second 5, third 6, fourth 7, fifth 8, and to 1, 3 doses of 4 drops each were given. In all these cases the relief was permanent except one case, which in the first treatment received 3 doses of 3 drops each, but after a second treatment the patient has been well for over 9 years, and this time it was the effect of 4 doses of 5 drops each. In the 7 that the treatment failed to do good, 5 stopped on account of the discomfort produced by the atropin, 1 claimed to have been cured by a clairvoyant after undergoing a number of injections, while in 1 it failed after 15 injections; in this case the sciatica was traumatic in origin.

The Importance of Diagnosis in Skin Disease.

Dyer, in The Medical News, gives the following important points in the diagnosis of skin diseases: (1) The location of the disease; (2) the distribution on the particular region on which it occurs; (3) the arrangement of the component parts, or lesions. The lesions themselves must be studied in detail so as to classify the disease. Eruptions which are bilaterally symmetrical are either constitutional in origin or are exposed to the identical local cause on both sides of the body. Parasitic diseases are found on the flexors preferably, or on the exposed parts of the body. The more chronic diseases of the skin become, the deeper the color; on the other hand, the brighter and more vivid the color the more acute the disease. Scales, ulcers and scars are the evidences of chronicity. Fluid lesions seldom itch. Papular eruptions almost always itch. Single ulcers are almost always syphilitic, trophic, traumatic or malignant. On the face ulcers are seldom due to other causes than cancer, syphilis or tuberculosis. The color of eruption on the Caucasian is always important in diagnosis. Syphilis is pigmented brown or buff as its eruptions fade. Leprosy is shaded brown or purple. Lichen rubor is violaceous or white. Psoriasis is always pale red covered with white scales. Seborrheic eczema is always yellow red with greasy scales. Syphilis, when ulcerating, smells rancid; favus has a mousy odor; varicose ulcers smell sweet; neurotic ulcers, or those of leprosy, are nauseous and foul, while rodent ulcer has the smell of rotting meat.

The Use and Abuse of Ether.

Probyn-Williams (Edinburgh Medical Journal) says when nitrous oxide anæsthesia is insufficient for an operation the anæsthetist should ask himself the question: "Is there any reason in the condition of this patient, or in the nature of the operation, which precludes the use of ether—at any rate, for the induction of anæsthesia?" Where possible anæsthesia should be induced by gas and ether, and if a change to chloroform be advisable, it should be made earlier in cases of operation on the thorax or abdomen than in those on the limbs. The use of ether is abused when (1) it is given to unsuitable subjects—*e. g.*, patients suffering from atheroma, thoracic aneurysm, or lesions of the respiratory tract; (2) in certain operations, such as those for cleft palate, goitre, or brain surgery; (3) when the patient is "soaked" with the drug; when full anæsthesia is established very little ether is needed to keep up the condition; (4) when etherization is too long continued the patient may become "waterlogged" with secretion, which may lead to bronchitis or cough trouble; this is especially the case after abdominal section or when the chest is bandaged. Again, prolonged ether stimulation may so mask the shock of lengthy operation that when the patient is in bed shock may be very marked. Thus, it is well in these cases to change to chloroform or a mixture, so that the patient's actual condition may be properly gauged, and the surgeon warned if necessary.

Cocaine Habit in India.

Bose (British Medical Journal) says, cocaine, which has but recently been introduced in India, is generally taken in the form of powders sprinkled on a paste of slaked lime, which is buttered on a betel-leaf. The mass is rolled up and chewed for about fifteen minutes. The first symptom of the so-called hilarity is a heaviness of the head. Then quickly follow a wild throbbing of the arteries of the neck and palpitation of the heart. The pulse never exceeds 110. The inebriate wishes to be left alone; he will not speak lest saliva

RECENT PUBLICATIONS.

Physical Diagnosis in Obstetrics

A Guide in Ante-Partum, Partum and Post-Partum Examinations. By EDWARD A. AYERS, M.D., Professor of Obstetrics in the New York Polyclinic Medical School and Hospital, etc., etc. 8vo. 304 pages. Illustrated. $2.00, net.

Childbed Nursing

With Notes on Infant Feeding. By CHARLES JEWETT, M.D., Professor of Obstetrics and Diseases of Women in the Long Island College Hospital, Brooklyn, N. Y. **Fifth Edition.** 12mo. 96 pages. Cloth, 80 cents net.

Syphilis—A Symposium

Contributions by Seventeen Distinguished Authorities. L. DUNCAN BULKLEY, WM. S. GOTTHEIL and others.

12mo. 125 pages. Cloth, $1.00 net.

International Medical Annual, 1903

A Year-Book of Treatment, combining the features of an Annual Retrospect with those of a Medical Encyclopedia. *In Press.*

8vo. 738 pages. Illustrated. Cloth, $3.00 net.

Obesity—The Indications for Reduction Cures

By PROF. DR. CARL VON NOORDEN, Translated under direction of DR. BOARDMAN REED.

60 pages. 50 cents net. 8vo.

Nephritis

By PROF. DR. CARL VON NOORDEN, Translated under direction of DR. BOARRMAN REED.

112 pages. $1.00 net. 8vo.

Legal Medicine—A System of

By ALLAN MCLANE HAMILTON, M.D,, and thirty others. SECOND EDITION, revised and enlarged. 2 vols. 700 pages each. Cloth, $10.00; Sheep, $12.00.

Sexual Debility in Man

By FREDERIC R. STURGIS, M.D., Formerly Clinical Professor of Venereal Diseases, Medical Department, University of the City of New York, etc. 8vo. 436 pages. Cloth, $3.00 net.

Books delivered free to any adress in the Universal Postal Union upon receipt of advertised price.

Our complete catalogue sent upon request.

E. B. TREAT & CO., 241-243 W. 23d St., New York.

Surgical Instruments Free

BY THE ADOPTION OF

RAY'S DIRECT ORDER PLAN.

The best and newest Instruments of the most reliable makes. We do not make Instruments, and we do not sell them.

We are Exclusively a Pharmaceutical House and our Prices are Lower than those of other Reliable Manufacturers.

Only the best and purest ingredients, scientific knowledge, and skill enter into our products.

Our discounts are large because we operate on an extensive and economical scale.

RAY'S DIRECT ORDER PLAN means:—We secure all orders through correspondence, employing no salesmen or detail men, thus saving 20 per cent. of the total cost of getting business. Therefore, over and above all regular discounts we credit our customers with 20 per cent. of the net amount of every purchase, and use that money to buy the instrument you want.

Your instrument credit is redeemable on each order, or can accumulate, just as you choose.

Send us a trial order and convince yourself of the many advantages of adopting our plan.

Catalogue with Discounts mailed on Request.

THE RAY CHEMICAL CO.,

Manufacturing Pharmacists. **Detroit, Mich.**

escape from the mouth. The ears become hot, the cheeks pale, and the nose pinched and cold. The height of intoxication is marked by coldness of the finger-tips and dilatation of the pupils. This last stage lasts from thirty to forty-five minutes, when the victim longs for a fresh dose. The teeth and tongue of old *habitues* turn absolutely black. The craving for an increased dose is pronounced. In one case it was so marked as to cause a jump from 1 to 20 grains in a month. The worst sequelæ are very obstinate forms of diarrhœa and dyspepsia. Of the mental derangements, hallucinations and delusions causing dejection and fear are common. A more miserable object than a confirmed Hindoo cocaine-eater cannot be pictured. The drug is altogether more disastrous in its effects than is opium or any other narcotic used in India. To quote the words of a victim, "To eat cocaine is to court misery."

The Nervous Affections of the Heart.

Gibson (The Edinburgh Medical Journal, Nov. 1902) believes in the use of exercise in the preventive treatment of nervous affections of the heart, especially of forced expiration and inspiration attended by appropriate movements of the shoulders and arms. When patients are unable to take active exercise, massage is of the highest value by the promotion of all the tissue changes. It must be carefully watched lest the blood should become surcharged with the products of metabolism and the condition of the patient rendered worse. Resistance exercises may be employed before the patient is able to take active exercise. As to the drugs to be used, alteratives, cardiac tonics, and vasodilators are the ones to be relied on. The iodides constitute the best alteratives, potassium iodide being the most efficaceous unless it is not tolerated, in which case one of the other preparations will have to be given. If there is any failure of the heart, preparations of iodine must be combined with cardiac tonics. When there is any tendency to a rise of pressure in the arterial pulse it is good practice to administer one of the vasodilators continuously in small dosage. Nitroglycerin or trinitrin is the most potent drug of its class. Its most convenient administration is in the 1-per-cent. solution, of which a dose from one-half to two minims may be given at first. In many instances as much as ten minims may be exhibited every four hours.

Miscellaneous.

Bruns' Airol Paste Therapeutically.

Dr. Wanach, of St. Petersburg, has used Bruns' airol paste—airol, 1 part; mucilage acacia and glycerin, of each 2 parts; white bole, sufficient to form a soft paste—with excellent results in the treatment of wounds, and found that in many cases it dispenses with the use of bandages and other dressing material. The application is very simple. With a spatula the paste is applied thick over the sutured wound and a thin layer of cotton is placed over it. On the following day the paste and cotton will be found to have formed a firm plate which remains hygroscopic, in the latter respect differing from collodion. After 4, 8, or 14 days the entire mass can usually be removed in toto without inconvenience to the patient. Suppuration about the sutures very seldom occurs, and if it does happen [in scalp wounds on unclean individuals], the secretion is constantly taken up by the paste and deep suppuration prevented. The airol paste is not disturbed by saliva, nasal secretion, or urine; and in gastrostromies the sutured part of the wound remains free from reaction. In laparotomies its use is also of great advantage, doing away as it does with cumbersome dressings. Excoriations, burns, superficial wounds, granulating surfaces heal as nicely under the airol paste as under the dry scab. Irritation is never caused by the paste. Artificial eczemas frequently heal after a single application.—*Klin.-ther Woch.*, IX, No. 48.

Aristoquin in Whooping-Cough.

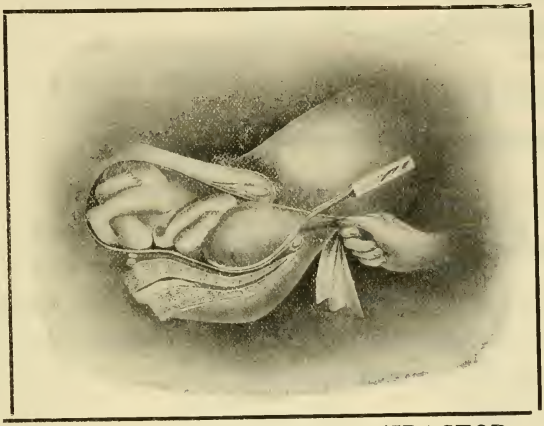
Aristoquin [aristochin; aristoquinine] is chemically diquinine carbonic ether. It occurs as a white, tasteless powder, insoluble in water, and containing about 96 per cent. of quinine alkaloid. According to Dreser, aristoquin in solution does not irritate the gastric mucosa, is twice as powerful in destroying protozoa as quinine sulphate, and in general less toxic.

Dr. H. Stursberg, of Bonn [Germany], has used this new quinine derivative in 18 cases of whooping-cough at the university medical clinic, the age of the patients ranging from five months to six years. Children under one year received 0.05 to 0.1 Gm. [¾ to 1½ grn.], older children up to 0.3 Gm. [4½ grn.], three times daily, with water. Vomiting or any other untoward effect was never noticed. As for the results, in about half the cases a decided effect was not obtained—partly ascribed to irregularity of administration; in the remainder the course of the disease was very favorable, the number of paroxysms materially diminishing.—*Munch. med. Woch.*, XLIX, No. 45.

MODERN METHOD of DELIVERY

NO INJURY TO MOTHER NOR CHILD

BLADES UNITE THE NET



BLADES APPLY THE NET

ST. CYR'S OBSTETRICAL TRACTOR

—BY—

PRACTICAL OBSTETRICIANS

Price, $15.00 (COMPLETE with one-half dozen Chinese Vegetable Silk Nets.) **Nets, each, 10 cents**

United States Patent November 11, 1902. Canadian Patent December 9, 1902.
REMIT by Postal or Express Order. Also Expressed C. O. D.

Why Not Order NOW and be Prepared.

Money Refunded upon return of instrument, if in any way unsatisfactory after THIRTY DAYS' TRIAL.

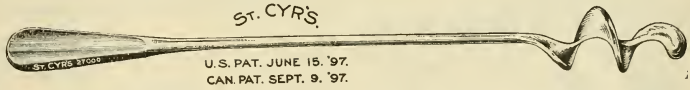
ORDER TO-DAY.

The Most Humanitarian Method of Delivery.

Upon Application we will mail you an illustrated Monograph.

Sole Manufacturers and Retailers . . . . **VICTOR V. MAY & CO.,** (Incorporated.)
SURGICAL AND PHARMACEUTICAL SPECIALTIES.
538 Ashland Avenue. CHICAGO, ILL.

The Original Spiral Curette and Evacuator.



The St. Cyr Curette is so perfectly constructed that a change in its form, or shape, will make it imperfect and thereby impair its efficiency.

THREE SIZES **Price $3.50 Each, Any Two $6.50, All Three $.800** LARGE SMALL MEDIUM

☞It makes sepsis practically impossible as it has no groves, no holes, no extraneous parts to carry septic matter into the uterine cavity. Furthermore, it will not only detach but evacuate as well.

It curettes and evacuates uniformly without danger or pain.

Its construction is perfect and well adapted for successful operations.

No physician can afford to be without a complete set of three "THE ORIGINAL" ST. CYR SPIRAL CURETTES AND EVACUATORS.

EVERY ONE IS GUARANTEED TO OPERATE.

—SOLE MANUFACTURERS—

VICTOR V. MAY & CO., (Inc.) Surgical and Pharmaceutical Specialties **538 Ashland Ave., Chicago, Ill.**

Tuberculosis and Wasting Diseases

Hydroleine is a pancreatized, predigested cod-liver oil, of great value in cases where a predigested food-fat is demanded.

Patients gain weight on Hydroleine where plain cod-liver oil passes through the lacteals unabsorbed.

Hydroleine checks the cough, increases the flow of bile, stimulates the general nutrition, creates an appetite and puts on weight.

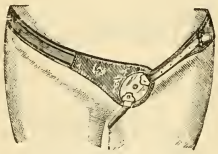
Sold by druggists generally.

The CHARLES N. CRITTENTON CO., 115-117 Fulton St., New York

Samples free to physicians. **Sole Agents for the United States**

Flavell's Elastic Trusses,

Can be Worn Day and Night.



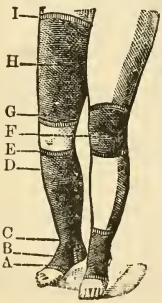
SINGLE TRUSS	Adults
A. Plain	$1.50
B. Fine	2.00
C. Silk	2.50
DOUBLE TRUSS	**Adults**
A. Plain	$2 50
B. Fine	3.00
C. Silk	4.00

PNEUMATIC PADS

Give circumference of abdomen on line of Rupture. State if for Right or left.

ELASTIC STOCKINGS.

Give exact Circumference and Length in all Cases.



NET PRICE TO PHYSICIANS.

	Stout Silk each	Fine Silk each	Thread each
A to E	$2.50	$2 00	$1.50
A to G	4.25	3.50	2.50
A to I	6.00	5.00	4.50
C to E	1.50	1 25	1.00
E to G	1.50	1.25	1.00
A to C	1.50	1 25	1.00

Goods sent by Mail upon receipt of price.

Safe delivery guaranteed.

Send your Orders Direct to

G. W. FLAVELL & BRO.,

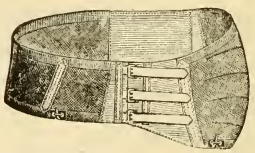
1005 Spring Garden Street, Philadelphia, Pa.

We Solicit the Physician's Patronage Direct.

ABDOMINAL SUPPORTER.

Give exact circumference of abdomen at

K. L. M.

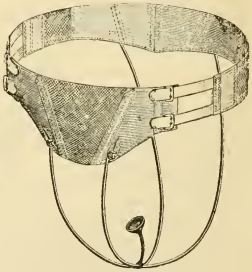


Silk Elastic.....$3.25
Thread Elastic..... 2.50

Flavell's Uterine Supporter.

Give measure 2 inches below Naval.

State if for Prolapsus, Retroversion or Anteversion.



NET PRICE TO PHYSICIANS

$2.50

TABLE OF CONTENTS FOR FEBRUARY, 1903.

Original Communications.

The Organization of the Medical Profession, by George W. Pressly, Charlotte, N. C..... 75

President's Address Delivered Before the Seaboard Medical Association, by Dr. Albert Anderson, Wilson, N. C..... 77

The Significance and Treatment of Cough, by William F. Milroy, M. D., University of Nebraska.. 80

Posture and Manipulation in Rectifying Uterine Misplacements, by Chas. E. Whilluck, M. D., Pillsford, Mich..... 82

Pernicious Malarial Fevers, by W. C. Graves, M. D., South McAlister, I. T... 83

Carcinoma Uteri, by H. C. Crowell, M. D., Kansas City, Mo..... 85

Interesting Cases in Kidney Surgery with Remarks, by R. L. Payne, M. D., Norfolk, Va 87

Etiology and Treatment of the Uric Acid Diathesis, by W. R. Inge Dalton, M. D., New York..... 89

Iron as a Hæmatic, by W. A. Haley, M. D., Durant, I. T..... 90

Unnecessary Martyrdom Sometimes Necessary, by James W. Squires, M. D., Churnbusso, Ind..... 91

Editorials.

Pathology and Treatment of Epilepsy..... 93

Dr. Lorenz's Visit and Crippled Children..... 94

Legislation in Kissing..... 94

Rheumatic Fever..... 95

Brain Symptoms in Ear Disease..... 95

Original Articles Sent to More than one Journal.. 96

Fruit for the Sick..... 96

Dr. J. C. Walton..... 97

Obituary.

Dr. J. G. Ramsay..... 97

Book Notices.

Saunders' Medical Hand-Atlases—Atlas and Epitome of Diseases of the Mouth, Pharynx, and Nose, by Dr. L. Grunwald, of Munich. Edited with additions by James E. Newcomb, M. D..... 98

Culbreth's Materia Medica and Pharmacology, by David M. R. Culbreth, M. D.. Baltimore..... 98

Progressive Medicine, Vol. IV, December, 1902, Edited by by Hobart Amory Hare, M. D., Philadelphia..... 99

Saunders Medical Hand-Atlases—Atlas and Epitome of Human Histology and Microscopic Anatomy By Privatdocent Dr. J. Sobotta, of Wursburg. Edited with additions, by G. Carl Huber, M. D., Ann Arbor, Mich..... 99

A Tale of Washington—"Around the Capital with Uncle Hank," by Thomas Fleming..... 100

Literary Notices.

The Review of Reviews.... 100

The January Lippincott's Magazine..... 100

The January-March Forum 101

January Cosmopolitan..... 101

Abstracts.

Appendicitis 101

A New Method of Shortening the Round Ligaments Intraperitoneally for Retroversion 104

A Study of Burns..... 110

A Clinical Study of Diplopia 124

An Observation Showing that the Flagella of the Malarial Parasite are Fertilizing Elements.... 126

Acute Nervous Diseases... 126

Bacilluria and Cystitis in Typhoid Fever, and the Action of Urotropin Thereon..... 112

Contagious Conjunctivitis. 115

Cocaine Habit in India.... 132

Diagnosis by Vaginal Examination 116

Entrance of Air Into the Veins 108

Empyema in Children..... 112

Effect of Climate on Laryngeal Tuberculosis..... 122

Fatal Acetonæmia Following an Operation for Acute Appendicitis..... 92

First Stage of Labor..... 113

Fibroma of the Ovary..... 130

Gunshot Wounds of the Abdomen from a Military Standpoint..... 119

"Influence of the X-Ray on Malignant Growths".... 103

Infantile Convulsions..... 114

Ipecacuanha Alkaloids.... 116

Lodgment of a Foreign Body in the Air Passages for Seventy-two Days.... 92

Laparotomy in Typhoid Perforation..... 107

Malignant Endocarditis... 105

Myelopathic Albumosuria. 108

Mercuric Cataphoresis in Cancer..... 128

Note and Case of Infection by Bacillus Aerogenes Capsulatus, in Which the Organism was Demonstrated in the Circulating Blood During Life..... 118

On Direct Endoscopy of the Upper Air Passages and Esophagus..... 105

Pregnancy and Labor After a Uterine Rupture..... 111

Pyloric Stenosis in Infants 114

Prostatic Hypertrophy.... 130

Rectal Feeding..... 113

Spastic and Syphilitic Spinal Paralysis..... 109

Suprapubic Prostatectomy. 114

Shortening the Round Ligaments Per Vaginam..... 118

Suprarenal Liquid with Chloretone in Diseases of the Ear and Nose..... 120

Some Observations Upon the Value of the Phloridzin Test for Estimating the Functional Capacity of the Kidneys, Renal Sufficiency..... 122

Some Points on the Etiology of Tuberculosis..... 124

Sciatica and its Treatment 130

The Etiology of Prostatic Hypertrophy..... 106

The Treatment of Atonic Dilatation of the Stomach by Means of High-Frequency Currents..... 109

The Mechanical and Combined Plastic and Mechanical Treatment of Retrodeviations of the Womb..... 110

The Surgical Treatment of Tuberculous Cervical Adenitis..... 111

The Ocular Manifestations in Chronic Bright's Disease..... 112

The Treatment of Early Cancer of the Larynx.... 113

The Hydatid Mole..... 115

The Relations Between Acute and Chronic Diseases..... 119

The Treatment of Pneumonia..... 120

The Genesis of Glioma Retinæ in Neuroglia..... 124

The Use of the Stomach-Tube..... 128

The Importance of Diagnosis in Skin Diseases... 132

The Use and Abuse of Ether..... 132

The Nervous Affections of the Heart..... 134

Varicose Veins..... 126

X-Ray as a Diagnostic Agent in Phthisis Pulmonalis..... 117

Coughs and Their Treatment.

By Drs. Alex. De Soto and C. W. Crimpton, of Wayside Mission Hospital, Seattle, Wash.

An intractable cough!

What condition so persistently tries the patience of every physician?

Careful examination has been made, the diet regulated, and one of the innumerable prescriptions for that ailment selected, but still the cough continues.

Then more investigation, and more careful prescribing; but still after weeks that familiar cough re-echoes through your waiting room, and you wish Mrs. Smith would change her Doctor.

No such good fortune attends you, and that cough haunts you as dismal thoughts of phthisis do your patient, until you are almost determined to advise a change of climate.

It is not the object of this paper to go into details regarding the only too well known disadvantages of most of our familiar cough mixtures. Down to that household standby, "Cod liver oil in every form," they have proven in the vast majority of instances, discouraging failures.

The above mentioned remedy, which the patient considers proof-positive of the doctor's having made a diagnosis of consumption, may invariably be depended upon to disarrange the digestion at least.

Cod liver oil, once begun, must frequently be continued throughout the entire winter season.

Nor can it be shown that the ingestion of fats and oils into the system, to become oxydized when coming in contuct with the oxygen in the lungs, ever does more than raise the local temperature, by combustion.

Although this may prevent cold in comparatively healthy lung tissue, its therapeutic (?) effect on the inflamed pulmonary structure may be described as positively harmful.

Cough is a symptom—varying in intensity and character according to its cause.

Nor is that cause always situated within the respiratory organs themselves.

Cough is essentially a reflex act depending upon an irritation of the respiratory center.

These sources of irritation may be subdivided as follows:

Dropping of mucous from the posterior nares in chronic catarrh.

Polipi, enlarged uvula or tonsils, defective closure of the glotis, irritation within the larynx from whatsoever cause, malignant or otherwise.

Bronchitis—Pneumonia and Pleurisy.

Gastric when due to derangement of the stomach.

Cardiac disease, irritations of auditory canal and organic diseases within the abdominal cavity.

From the foregoing causes, it may be readily estimated that to arrive at the exact nature of any given case may not always be an easy matter. Nevertheless, we must relieve the patient, without risk of disturbing either digestive or circulatory systems. Any remedy which will attain this object in a goodly number of cases is indeed a God-send to patients and physician, and in every sense an ideal remedy.

Not until our attention was called to Glyco-Heroin (Smith) did we become acquainted with a remedy which we have used with a most unvarying success in coughs of every description, and in patients of all ages and conditions, without the slighest unfavorable effect.

The points which recommended Glyco-Heroin (Smith) are:

1st. Palatability.

2nd. Economy, (3 to 4 oz. being ample for a cure of the average case).

3rd. Its immediate action, soothing the most trying cases.

4th. Its absolute freedom from unpleasant or unfavorable effects.

5th. It is not only a palliative but a curative agent.

6th. The Hyoscyamus it contains reaches those trying cases of dry cough due to other causes than simple catarrhal irritation of the respiratory tract.

We are convinced that Glyco-Heroin (Smith) has no competitors in results, its action being almost specific. It will give satisfaction in every case where results may be reasonably expected, and in many cases its beneficial effects go beyond the most sanguine expectations.

The character of the cases coming to the Wayside Mission Hospital for treatment may be imagined when it is remembered that it is essentially a charity institution; that the vast majority of patients come to us after having tried everything else. These are worthy prospectors and miners, broken in health and pocket by exposure and misfortune.

As proof of the above we submit the following cases:

I.

Dr. McK. Laborer, 22 years. Had typhoid fever convalescence much impeded by severe coughing spells, frothy white expectoration, irritable stomach. This condition defies all treatment. There was marked dullness at spaces of both lungs to the third intercostal spaces.

Morning temperature normal, resp. 28, pulse 104.

Surgical Chairs.

FEICK BROS. COMPANY.

HEADQUARTERS FOR

SURGICAL INSTRUMENTS and PHYSICIANS' SUPPLIES.

Quality of first importance always, but prices likewise low. A few specialties.

Davidson Atomizers.

Artificial Limbs, **Nose and Throat Instruments,**

Electric Batteries, **Orthopædic Apparatus,**

Invalid Supplies.

Elastic Hosiery.

Trusses.

Artificial Eyes.

Braces.

414 WOOD STREET, : : : : : : : : : PITTSBURG, PA

The Baltimore Medical College.

Preliminary Fall Course begins September 1, 1902.

Regular Winter Course begins September 25. 1902.

Excellent Teaching Facilities; Modern College Buildings; Ideal Lecture Hall and Amphitheaters; Large and Completely Equipped Laboratories; Capacious Hospitals and Dispensary; Lying-in Department for Teaching Clinical Obstetrics; Large Clinics; Send for Catalogue, and address DAVID STREETT, M.D., Dean. 712 Park Ave., Baltimore, Md.

CAPSULES

of Cypridol do not salivate or produce dyspepsia and the emaciation which is inevitable with other mercurials. 1/32nd grain in each capsule.

Sold in Bottles of 50.

CYPRIDOL

A 1% SOLUTION OF MERCURIC IODIDE IN AN ASEPTIC OIL

IN

SYPHILIS

INJECTIONS

of Cypridol are vastly superior to all soluble or insoluble mercurials used hypodermically.

They are non-irritating and free from all untoward after effects.

Dispensed only in graduated tubes.

6 tubes in a box.

CEREVISINE

succeeds admirably in the treatment of furuncles, urticaria, acne and boils which promptly subside and disappear under its influence.

PURE DESICCATED YEAST

CEREVISINE

IN

SKIN DISEASES

CEREVISINE

Is indicated in cases of psoriasis, herpes and eczema; its effects being associated with corresponding improvement in the general health.

U. S. Agents, E. FOUGERA & CO., 30 N. William St., New York.

Evening temperature 101, resp. 37, pulse 120.

This condition had persisted for nine days, with pregressive loss of strength.

Dec. 16th. Glyco-Heroin (Smith) teaspoonful every 2 hours.

A. M. temp. normal, pulse 104, resp. 28.

P. M. temp. 101, pulse 120, resp. 36.

Dec. 17th. Slight relief to cough, had some sleep.

P. M. temp. 100, pulse 96, resp. 24.

Dec, 18th. Relief marked.

P. M, temp. normal, pulse 80, resp. 20.

Dec. 19th. Expectoration free, appetite and spirits better, rapid improvement.

Dec. 20th. Improvement continued, sat up about 2 hours.

Jan. 8th. Dullness and cough gone, spirits and appetite good, gaining flesh rapidly.

Jan. 11th. Discharged cured.

II.

February 19th.

Wm. M. Cook, 52 years. Has had severe cough for last three months, due to cold caught in a typhoon on the China Sea after three days' exposure to cold and wet. Has hardly any sleep, incessant dry night cough. Glyco-Heroin (Smith) teaspoonful every 2 hours.

Feb. 21st. Immediate relief, has had quite a little sleep.

Feb. 22nd, Improvement continued.

Feb. 24th. Slept all night.

Feb. 26th. Has not coughed in 48 hours.

Feb. 28th. No return of cough and discharged cured. Is now in charge of the culinary department of Hospital.

III.

January 23rd.

D. A. Coolie, laborer, 48 years. Marked dullness at base of left lung, severe pain and dyspnoea. Temp. 102; pulse 104; resp. 40. There was daily chilliness at 11 a. m., followed by temp. of $103\frac{2}{5}$ to 104. Expectoration muco purulent. Emaciated, irritable, and appetite completely lost.

Jan. 26th. Glyco-Heroin (Smith) teaspoonful every two hours.

Jan. 27th. Some relief to cough, other conditions same.

Jan 28th. Free expectoration, all conditions still unchanged.

29th. No morning rise of temperature, p. m. temp. 102, pulse 96, resp. 32.

30th. Seems somewhat better; had a profuse night sweat.

31st. Temp. 101; pulse 88; resp. 24. Took considerable nourishment.

Feb. 1st. Temp. normal; pulse 88; resp. 24. Less dullness, no expectoration, cough disappearing.

Spirits vastly improved. Said it was his third attack, and that in each former instance he was in bed 11 and 8 weeks respectively. Continued to improve, and was discharged Feb. 26th, well.

IV.

January 17th.

J. J. Laborer, 19. Pneumonia, 3rd day, dullness of entire right lung. Temp. $103\frac{2}{5}$; pulse 120; resp. 60. Expectoration *pruinjuice*, restless and thirsty. Slight delirium. Glyco-Heroin (Smith) teaspoonful every 2 hours.

Jan. 18th. Temp. 102; pulse 102; resp. 48. Much easier.

19th. Temp. 100; pulse 84; resp. 36.

20th. Temp. normal; pulse 80; respiration 24.

Expectoration has changed, and is feeling much better. Absolutely refused to believe that he had pneumonia. Discharged cured.

V.

November 3rd.

S. J., a diver, 34 years. Had just been discharged from another hospital where he had been treated for four months for typhoid pneumonia. Had considerable dyspnoea; cough dry, spasmodic, at times slightly frothy expectoration. Temp. normal; pulse 100; resp. 28. Right plural cavity filled to the fourth intercostal space with pleuritic fluid which could be heard to splash on slight agitation of chest. Appetite poor, and is much dispirited. At five sittings three and three-fourths gallons of fluid were withdrawn by aspiration.

Nov. 6th. Glyco-Heroin (Smith) teaspoonful every 3 hours, has much relieved the spasmodic cough; condition in general seem to be improving.

Nov. 11th. Cough has almost disappeared. Continued in this condition to Jan. 14th, when two and one-half quarts of fluid were withdrawn.

Feb. 3rd. Complained of pain under scapula and was given a dry hot air treatment followed by violent cough, fever $104\frac{1}{5}$; pulse 124; resp. 28; Glyco-Heroin (Smith) every 2 hours.

Feb. 4th, had a hemorrhage and was slightly delirious; the general condition unchanged.

Feb. 5th. Cough almost gone; temp. $101\frac{2}{5}$; pulse 82; resp. 21. Is eating some, and feels much better.

Glyco-Heroin (Smith) has always relieved his cough promptly, and believe he would have been dead but for its soothing influence. While we do not look to the remedy as a cure for Hydrothorax, we ap-

DOCTOR: If you have any cases of curvature of the spine —any form— antero, posterior, rotary or lateral —weak back, lax abdomonial wall, umbilical hernia, large abdomen, pain in back, neurasthenia due to irritation of lumbar and sacral nerves, in man, woman or infant, or woman suffering from lack of strength in abdomonial wall and backache, write us for full particulars of our Scientific Spinal Appliances made on special measurements to meet all conditions of Spinal troubles. No plaster, sole-leather or rawhide jackets needed. We **guarantee satisfaction.** We make other styles of Braces, Supports and Appliances. Our **Lift Up Abdomonial Supportor** is a wonderful help to persons troubled with weak back or backache, and always relieves that soreness and pain so often supposed to be kidney trouble. The average weight of one for an adult does not exceed seven ounces. This support is highly recommended **for weak and pregnant** women, in cases of lax conditions of the abdomonial muscles both before and after child birth.

Our **Model Form Appliance** is especially adapted to use in cases of weak back or stooping shoulders. It is a combined shoulder brace, spinal and abdomonial support.

Send for price list and illustrated catalogue containing endorsements from experts, physical instructors and patients who have our Appliances and supports in actual use. **We will see to it that both you and your patient are benefitted**

PHILO BURT MFG. CO. 128 SECOND ST., JAMESTOWN, N. Y.

These trade-mark crisscross lines on every package.

GLUTEN FLOUR For Dyspepsia

SPECIAL DIABETIC FLOUR.
K. C. WHOLEWHEAT FLOUR.
Unlike all other goods Ask Grocers

Criss-Cross Cereals

These trade-mark crisscross lines on every package.

Gluten Grits AND **BARLEY CRYSTALS**

Perfect Breakfast and Dessert Health Cereals.
PANSY FLOUR for Biscuit, Cake and Pastry.
Unlike all other goods. Ask Grocers.

Successfully indicated as Diet in cases of

Dyspepsia, Diabetes, Constipation

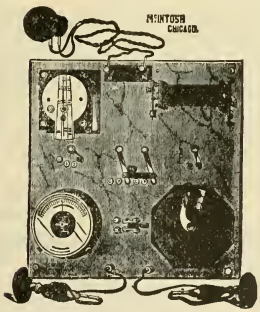
A Diet of SPECIAL DIABETIC FOOD should show a decrease of sugar after two weeks' use, increased strength, relief from thirst, and much better rest at night.

"All these preparations are the best that skill, experience and capital can make, and a very careful examination, both scientific and practical, has shown that every claim made by the manufacturers has been fully confirmed as true."—AMERICAN ANALYST, NEW YORK.

Special Offer to Physicians | On application we will send an order on Messrs. W. C. Stronach & Sons, Raleigh, N. C., R. L. Christian & Co., Richmond, Va., or the nearest grocers who carry our goods for samples for trial | **Farwell & Rhines Watertown, N. Y.**

Galvanization, Faradization, Franklinization and X-Ray.

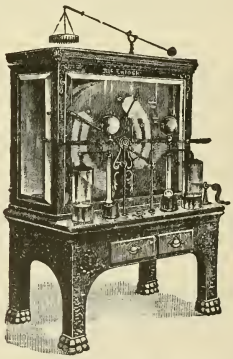
McINTOSH GOODS EXCEL BECAUSE OF MERIT.



NO. 6 Table or Wall Plate.

WE OFFER you the **No. 6 Table or Wall Plate,** embracing all the valuable accessories of a complete office battery, arranged for use with 110 volt direct current, or with battery of forty-three Ammonium Chloride Cells.

The Improved Construction 16 Plate Static Machine, complete with X-Ray attachments, is unequaled for administration of Franklinic and X-Ray Therapy, together with X-Ray Diagnosis.



McIntosh Static Machine.

Our goods are always reliable, combining simplicity of construction with durability and ease of operation.

SEND FOR ILLUSTRATED CATALOGUE AND PRICE LIST.

BATTERIES, ELECTRODES, STATIC MACHINES AND X-RAY COILS.

McINTOSH BATTERY AND OPTICAL CO., 39 W. Randolph St., CHICAGO.

preciate the sedative effect, in which it is superior to *morphine* and harmless.

VI.

January 11th.

Jan. 11th. W. McD., age 18. Measles thoroughly developed. Temp. 103⅘; violent cough; yellow expectoration; cannot find rest because of the cough. Glyco-Heroin (Smith) teaspoonful every 2 hours.

Jan. 12th. Cough is much better.

Jan. 13th. Has not coughed all night.

Jan. 18th. Discharged without return of cough. Entire quality of Glyco-Heroin used was as 4 oz.

VII.

L. G., age 10 mos. Jan. 29 operated upon for radical cure of right inguinal hernia; on Feb. 6, although doing well in every way he was seized with violent paroxysms of coughing (probably due to dentition). The stitches threatened to tear out and the operation prove a failure. Glyco-Heroin (Smith) *XV. Guttae* every 4 hours completely controlled the cough in five doses and so saved the case. There were no visible unpleasant effects of any kind whatsoever from the medicine.

VIII.

J. K., age 22, in hospital one year for tubercular disease in the lumbar region. Jan. 15th was operated on and much diseased tissue removed. He developed a violent cough Jan. 16th, which caused him great pain and bleeding in the wound. Glyco-Heroin was given, two teaspoons every three hours, with splendid effect. Five doses removed the cough entirely.

IX.

Outdoor Cases.

Mrs. T., depot matron; had a cough that had defied the treatment of several physicians. It was a dry, hacking cough, and she had had no sleep in five nights. Completely cured by four oz. of Glyco-Heroin (Smith).

Mrs. M. had been to several physicians; her case had been diagnosed as phthisis; she was taking one-half bottle Emulsion of Cod Liver oil per day. She was also using morphine freely, 4 oz. of Glyco-Heroin completely cured her, and she gained at the rate of 1 lb. per day.

Miss E., seventeen, cough 4 months without relief, was immediately relieved by a few doses of Glyco-Heroin (Smith).

Mrs. D., distressing cough and some dullness at base of right lung. Her cough completely cured by less than 1 oz. of Glyco-Heroin.

McD., aged 36. Policeman. Had been coughing 3 weeks and was getting worse. Four oz. of Glyco-Heroin completely cured him.

Mr. R. with all symptoms of pneumonia. Temp. 104; pulse 126; respiration 40. 4 oz. of Glyco-Heroin completely cured him.

Gentlemen:

I have recently had occasion to prescribe Peptenzyme in a case of vomiting of pregnancy in a woman, age 35, primipara. She suffered intensely from nausea immediately after eating, having been able to retain scarcely any food for nearly three weeks. Various digestive compositions were employed without the least benefit, some even seeming to aggravate the trouble. I put her on Peptenzyme, two tablets after each meal. She has not vomited since taking the first dose about two weeks ago. I never saw a drug act so promptly nor so uniformly as has Peptenzyme. I do not believe there is another agent of its class on the market that approaches it in therapeutic value. I have also used the remedy in gastric catarrh and atonic dyspepsia with absolutely positive results. It does not wear out like many of the so-called digestive compounds, especially some of the stuff on the market that is sold to physicians at 25c. per ounce and which is composed principally of sugar of milk and other cheap agents to add bulk with just sufficient Pepsin to give them the characteristic smell. My advice to the profession is to use Peptenzyme wherever and whenever such an agent is indicated. In the vomiting of pregnancy it is sometimes best to give one tablet one-half hour before eating and one immediately after.

In indigestion where there is malnutrition and consequent tissue waste without repair, Peptynzeme will act in a most agreeable and satisfactory manner. When given to the habitual drinker after a "booze" it will assist in correcting the gastric trouble and enfeebled nerve condition that almost robs him of a conscious individuality.

Most truly yours,

JOSEPH N. DAVIS, M. D.,
Kansas.

Notice-- SANDER & SON EUCALYPTOL is invaluable in inflammation of the mucous membranes, and in all septic and infectious diseases. Apply to Dr. SANDER, 88 Lincoln Avenue Chicago, Ill. for sample and literature of Sander's Eucalyptols Meyer Bro.'s Drug Company, St. Louis, Mo., Sole Agents.

Marshall's Patent Convertible

HAND CASE SADDLE BAGS.

Fig. 1 is Fig. 2 in Saddle Bag Form. One side open. Fig. 2 is Fig. 1 in perfect Hand Case Form, closed.

Write for complete Catalogue Showing all Styles of

Converting and Non-Converting Saddle Bags.

Buggy Vial Cases and Gynæcological Bags at Lowest Prices.

E. B. MARRHALL,

183½-189 Lake St., - - - - Chicago.

NEURILLA

NERVE CALMATIVE

NERVE HEALTH follows its use.

Dose: Teaspoonful every half hour until nervousness is abated, then four times a day. Teething Children 10 to 20 drops.

DAD CHEMICAL COMPANY, NEW YORK.

THE CHARLOTTE OBSERVER.

A Democratic Newspaper devoted to the advancement of North Carolina and the South. : : : : : :

Daily, $8 Per Year. Weekly, $1 Per Year.

J. P. CALDWELL,

Editor and Manager, Charlotte, N. C.

WE CAN COLLECT

Your old bills. We are turning worthless accounts into ready cash for scores of physicians

NO COLLECTIONS, NO PAY, in each state. The largest exclusive Physicians Collecting Agency in the United States. Write for terms.

Physicians Protective Assn., Kansas City, Mo.

TERP-HEROIN

Foster's

A Respiratory Antispasmodic Sedative and Expectorant

Most successfully indicated in the treatment of all diseases of the respiratory tract, attended with Cough and Dyspnea, Pulmonary and Laryngeal Tuberculosis, Bronchitis, Laryngitis, Pneumonia, Emphysema, Asthma, and Whooping Cough.

CONTAINS

Terpin Hydrate 2 grs. and
Heroin 1-24 gr. to the drachm in a vehicle of Prunus Serotina and
Glycerine, making it a very agreeable and palatable preparation; being tolerated by the most sensitive stomach.

DOSE:—Teaspoonful every two or three hours.

POSITIVELY
ABSOLUTELY and
INCONTROVERTIBLY
the best RESPIRATOSY SEDATIVE ever offered to the PROFESSION.

It DOES control the cough.
It DOES relieve the congestion of the passage; and
It S make expectoration easy.

Being a remedy of proved value it rests upon its own merits.

PUT IT TO THE TEST.

Prescribe TERP-HEROIN (FOSTER'S) in Original 250 c. c. (8 oz.) bottles to avoid substitution.

Samples and Literature on application.

JOHN B. FOSTER & BROTHER,
Newark, N. J.

Detroit, Mich., Nov. 23, 1902.

FREDERICK STEARNS & CO.

Detroit, Mich.

Gentlemen:

I recently had in my practice three severe cases of pronounced scarlet fever. After employing the conventional remedies for several days without any decided success, I determined to try Stearns' Antistreptococcic Serum, which I had learned had been used with good success in a number of malignant cases of the disease.

My cases were in one family—three little sisters—aged 6, 8 and 10 years. On the day I decided to give the serum, I found the one 6 years old very ill, temperature 104 deg., feet and hands cold, throat and glands about the neck very much swollen and the child comatose, having passed a bad night. The two sisters were also very sick. On account of its having to be given hypodermically and being different from the ordinary medicinal treatment, the mother strenuously objected to my using the serum, but finally with considerable argument and persuasion she consented to let me give the contents of one bulb (10 c. c.) to one of the children. I selected the child in the worst condition, the one just referred to. Next morning I found this one apparently well, having passed a good night, and with temperature of 99 deg. The other two children who did not receive any serum were just as bad as the day before. This instance, to my mind, is very strong evidence indicating your serum to exert a specific influence in this disease worthy of more thorough investigation. The mother seeing the beneficient results following the use of the serum in this case desired that I use it in the other cases. I did so, giving 20 c. c. to each, and within 48 hours the children were practically well.

This pleasing experience with your antistreptococcic sernm has given me great faith in its efficacy in combatting scarlet fever, a dreaded and common disease which has no specific treatmeut. I shall test it further, expecting to get the same good results. Very truly,

W. E. SCRIBER, M. D.

The Treatment of Influenza and Coughs.

We excerpt the following from the Toledo Medical Compend by David E. Bowman, M. D., Toledo, Ohio, Professor of Obstetrics, etc., Toledo Medical College: "The elimination of the toxins is too frequently overlooked in these cases. Formerly, in their efforts to relieve the distressing symptoms, the profession have used remedies which produced stomachic disturbances, arrest of secretions, constipation, etc. I find nothing better to overcome the congested condition, in these cases, than two Laxative Antikamnia and Quinine Tablets given every 3 hours. If needed, follow with a seidlitz powder or other saline draught the next morning, before breakfast. This will hasten peristaltic action and assist in removing, at once, the accumulated fecal matter. Heroin hydrochloride has been so largely used for coughs and respiratory affections that it needs little or no recommendation in this class of cases, but the favorable synergetic action of this drug used with antikamnia, is, I believe, not sufficiently appreciated. Antikamnia and Heroin Tablets will be found useful by every practitioner, particularly during the winter and spring months. The antikamnia not only adds potency to the respiratory stimulant and expectorant qualities of the heroin, but it prevents the slight nausea which may at times follow its administra ion."

Various Uses of Iodipin.

Dr. E. J. Feibes, in charge of a sanatorium at Aachen (Prussia), reports on his extensive experience with iodipin (iodized sesame oil) during the past few years. He used the 25-per cent. strength exclusively; usually hypodermically, sometimes per os in capsules or with beer. The iodipin was readily assimilated, as shown by the prompt presence of iodine in the saliva and urine. In 16 cases of *malignant early syphilis* iodipin rendered most excellent service: in every instance the symptoms disappeared within a relatively short time. In one patient, in whom mercury was not tolerated and potassium had no effect, daily injections of 50 Gm. (12 dr.) iodipin 25 per cent. were well borne, and in four days brought about a complete change in the symptoms which had for eight months previously resisted subcutaneous mercurial injections. Of 3 cases of *rectal syphilis*, in 2 cure followed the daily inunction with 6 Gm. (1½ dr.) of mercurial ointment and the injection of 25 Gm. (6 dr.) of iodipin, 25 per cent.; while in the third case, in which mercurial inunctions and potassium iodide were ill borne, the hypodermic use of iodipin alone promptly resulted in recovery. In 63 further cases of general syphilis, speedy recovery was effected by the combined use of mercurial inunctions and iodipin injections; and there were no relapses, as had previously occurred in a number of the cases after the customary treatment with mercury and potassium iodide. In *nasal syphilis* iodipin rendered good service, and is preferred by the author to potassium iodide except in acute cases. He has treated a large number of necrosed na-

THE MECKLENBURG

NEW HOTEL AND SANATORIUM. MODERN COMFORTS.

Chase City, Virginia.

A new, modern hotel and Sanatorium located on the outskirts of Chase City at an elevation of 535 feet, with a thorough system of drainage and perfect sanitary conditions, surrounded by 145 acres, a large proportion of which is pine forest; far from any swamps or sluggish streams, a dry, bracing atmosphere and absence of humidity, absolute freedom from malaria and mosquitoes. On the Southern Railroad 12 hours from New York, 3 hours from Richmond and 4 hours from Greensboro, N. C. 125 large, airy bedrooms, all outside rooms, broad verandas, sun-parlors, and the building heated throughout by steam, electric lights, private baths, and every modern convenience for the care and home-like comfort of its guests.

A modern hydriatric department with skilled and experienced attendants (masseurs, etc.) for the administration in the latest and most approved form of all kinds of hydrotherapeutic methods. A complete electric outfit for the administration of galvano-faradic, static and X-ray work. The celebrated Chase City Lithia and Chloride Calcium Waters, with a well established reputation for the cure of rheumatism, gout, chronic kidney and bladder troubles, stone in the bladder or kidney and in all uric acid conditions, indigestion, catarrh of the stomach and bladder, blood troubles, scrofula, glandula enlargements, chronic eczemas, anemias, chronic malarial poisoning nervous prostration, melancholia, hysteria, etc.

IT WORKS IN THE DARK.

The most inciduous malady is the unsolved condition known as

DIABETES MELLITUS.

It stealthily saps the vitality and soon robs your starved patients of a fighting chance for life. Why continue to drug your diabetic clients. Far better results will be obtained by placing them on NATURES CORRECTIVE OF NUTRITION.

ALLOUEZ MAGNESIA SPRING WATER.

This alkaline agent has long since won its spurs in the permanent cure of Glycosuria, and in 60% of cases of Diabetes.

Allouez possesses a peculiar subtele influence which acts very favorably on this elusive disease. The daily saturation of the patient with Allouez-Magnesia corrects nutrition, cleanses the stagnated emuncotries and elimination is completed without reaction. Mitchell asks: "It it a discovery in the therapeutics of Diabetes?" The scope of its availability includes Nephritis, Albuminuria, Bright's disease and disorders due to excessive acidity.

Write today for full literature. At dealers everywhere.

Prize Medal Paris 1900. Still; half gals: Sparkling; quarts and pints.

ALLOUEZ MINERAL SPRING CO. (P. O.) Green Bay Wis.

sal bones, and always achieved excellent results. The putrid masses adhering to the ulcerated surfaces are very quickly detached, and no coryza is produced. Dr. F. has used iodipin, 24 per cent., in quite a series of cases of *syphilis of the nervous system*—hemipiegia, cerebral syphilis, spastic spinal paralysis, and locomotor ataxia. Thermal baths, inunctions, and iodipin injections constituted the treatment, which proved of more than usual efficacy. In cases of obstinate specific *adenitis* and *periostitis*, the author injected 1 Gm. (15 min.) of iodipin, 25 per cent., in the region of the diseased part. A compressive dressing of cotton was applied in the periostitis cases, so as to prevent diffusion of the iodipin; the injection was repeated as a rule but once, general treatment usually sufficing to complete the cure. The beneficial results manifested themselves very promptly in a few days. Finally, Dr. F. has treated *psoriasis* and *sciatica* with iodipin. In 5 cases of the latter he injected 5 Gm. (75 min.) along the course of the nerve. In 3 the result was striking; the pains rapidly subsided, and the free use of the limb was speedily restored. Sometimes 4 injections were given at one séance. In the 3 psoriasis cases, some of years' standing, warm baths containing some creolin, inunctions with green soap, and injections of iodipin 25 per cent., soon brought about a marked improvement, so that the cure could be readily completed by an ointment of white precipitate, green soap, and vaselin.

Where the patient refuses injections, Dr. F. gives the iodipin per os, up to 30 Gm. (1 oz.) per day; rectal administration is considered superfluous.—*Dermat Ztschr.*, 1902, No. 9.

Atropine Methylbromide as a Mydriatic.

Atropine methylbromide, or methylatropine bromide, was recently introduced as a mydriatic by Dr. L. Vaupel [see our December issue]. Dr. A. Darier, of Paris, has made a series of careful observations on its physiological action; the following are his conclusions: Atropine methylbromide is a valuable succedaneum for atropine sulphate, free from some of its drawbacks and possessing certain new qualities. In large quantities and frequently repeated [1. to 2-per-cent. solution] it has the same action on the pupil and accommodation as atropine sulphate. In moderate quantities [1 drop of 1-per-cent. solution] the mydriasis produced may last a little longer than twenty-four hours, but the paralysis of accommodation disappears in a few hours. Applied in small quantities [1 drop of ½-per-cent. solution containing 1 per cent. cocaine], considerable dilatation of the pupil results with scarcely any appreciable paresis of accommodation. Thus, atropine methylbromide renders real service as a diagnostic agent in the beginning of iritis. Should there be no iritis, the inconvenience produced by the mydriatic is much less than if atropine sulphate had been instilled; and if iritis is present, the instillations are to be continued. Where it is desired to determine the static refraction, atropine methylbromide can perfectly replace homatropine. For ophthalmoscopic examinations, where dilatation of the pupil is indispensable, the new mydriatic combined with cocaine has the same action as euphthalmin, which up to the present time was the only mydriatic that did not paralyze accommodation to any considerable extent. Atropine methylbromide is thus calculated to play a most important role in ocular therapeutics.—*Clin. ophthalm*, VIII, No. 21,

Buffalo Lithia Water as a Solvent.

By J. Simonides Grant, M. D., New York.

Only such natural waters as possess therapeutic properties far above the ordinary, break the bound of local environment and find their way into the outer world. And the extent to which such spread or popularity may go, is a fair standard by which to guage the therapeutic merits of a natural mineral water.

Measured by this standard, Buffalo Lithia Water is far ahead of all other medicinal waters in the estimation of the Medical profession, not only is it known and prescribed by many physicians throughout all the Americas but it is also used in many foreign countries.

Buffalo Lithia Water was first brought to my notice by Dr. J. S. Todd, Professor of Materia Medica and Therapeutics in the Atlanta Medical College, in consultation in a severe case of pneumonia. Prof. Todd, suggested milk and Buffalo Lithia Water equal parts, alternated with equal parts of whiskey and Buffalo Lithia Water, every hour or two, pro re nata. I adopted his treatment with the most gratifying results and it has been to a great extent a regular routine with me ever since. Under this treatment I always find a decided lessening of the febrile movement which I attribute to the pronounced solvent influence of the Buffalo Lithia Water on the kidneys. It undoubtedly stimulates these organs and increases their power of eliminating toxic elements from the blood.

In acute albuminuria of pregnancy experience has taught me to regard the solvent properties of Buffalo Lithia Water as a specific. It is my practice to guard my patients against too frequent complication

Terraline

is the great Constitution Builder of the Human organism. It improves the appetite, aids absorption and assimilation, thus promoting metabolism and increasing nutrition. It is a Pure, Tasteless, Odorless, Wholly Assimilable preparation of Petroleum and has proved of inestimable value in all

WASTING DISEASES of the LUNGS and THROAT

including early Phthisis, Bronchitis, Laryngitis, Bronchopneumonia, Grippe, Winter Cough, etc.

Also in all diseases accompanied by malnutrition and loss of weight and strength. It checks irritability of the air passages and modifies their secretions; calms the excited nervous system and thus aids sleep; and by its antiseptic properties neutralizes infection and thus enables the natural recuperative forces to rally in support of restoration to health.

TERRALINE is put up in 12-oz. bottles only (*never sold in bulk*) and may be obtained at all prescription druggists.

A regular size bottle will be forwarded free to any physician upon receipt of 25 cents to pay carriage.

The Hillside Chemical Company,

Sole Proprietors. Newburgh, New York.

in pregnancy by a timely use of this water. I have them drink it freely from the beginning of the sixth or seventh month to its conclusion. This treatment, with proper regulation of diet and proper hygiene, insures a safe and easy delivery and leaves the patients in proper condition to meet all the requirements of motherhood.

If, however, the albuminuria be pronounced and persistent, as is frequently the case when I am called in the last few weeks of pregnancy, I push the Buffalo Lithia Water to the limit, allowing my patient as much of it as she can take without positive discomfort. Its solvent properties rapidly eliminate the urea and other morbid elements from the blood, and relieves vomiting and other symptoms of gastro-intestinal disturbances. There is also a rapid diminution of the intensity of renal inflammation, a promotion of resolution and restoration of the secretory functions.

In severer cases, where there are pronounced symptoms of uremic poisoning, coma or eclampsia, the intra-venous administration of Buffalo Lithia Water, with sodium chloride added, will frequently save the life of the patient, even when all other remedies and measure have failed.

And this reminds us that Buffalo Lithia Water, on account of its absolute purity and smoothness, is a most desirable menstrum for the intra-venous administration of saline or normal salt solutions wherever and whenever indicated or necessary.

The therapeutic value of Buffalo Lithia Water in so-called skin-diseases cannot be over-estimated. I say "so-called" because I regard this class of ailments as symptoms rather than diseases. They are usually indications of defective metabolism, or functional derangements of certain vital organs. This statement is supported by no less an authority than one of our most famous Dermatologists, Prof. Geo. Henry Fox, who says that this class of ailments belongs to the domain of the general practitioner.

But its in that class of skin lesions, such as the eczema, acnes, erythemis, etc., due to an uric acid diathesis that I have found the Solvent Properties of Buffalo Lithia Water of the greatest value. That it neutralizes and eliminates this acid all physicians who have used it and carefully noted its results (by urinary tests, etc.) are agreed. And it is logical to suppose that this result is largely due to the fact that by its solvent power this water materially increases the metabolic forces, and prevents the contributary or prime cause in skin lesions. In other words Buffalo Lithia Water not only removes the cause in this class of ailments, but it also eliminates, (through the kidneys and other excretory organs) the debris or toxines which are invariably present.

The same theory applies to the therapeutic Solvent effects of Buffalo Lithia Water in rheumatism, gout; the former supposed to be due to an excess or uric acid, the latter to too much lactic acid. The extraordinary value of this water in both these affections is attested by a large majority of cures, after other methods had failed. Buffalo Lithia Water also gives most excellent results in neurasthenia or nervous prostration; more especially when that condition is due to mental strain or over work.

In diseases of the alimentary tract, such as gastritis, acute and chronic, intestinal indigestion, colitis, etc. Buffalo Lithia Water gives much satisfaction. It prevents the formation of noxious gases and inhibits the development of toxic organism.

I have also found it equally effective in diseases of the urinary bladder and its mucous-lined connections. The great Solvent properties of Buffalo Lithia Water prevents the formation of renal or urinary calculi and also greatly facilitates their disintegration and expulsion if already formed.

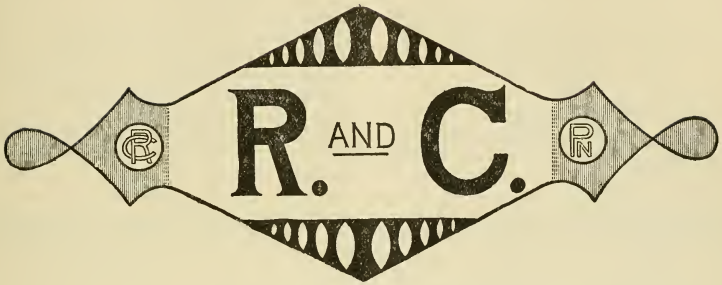
Its solvent and eliminating properties seem to be due to the peculiar combination of the lithium and other alkaline carbonates which it contains, making Buffalo Lithia Water the most powerful solvent of uric acid, of which we have any knowledge.

Not only is uric acid the nucleus of such formations, but it also enters largely into the various layers of their superstructure, a fact which accounts for the rapid solution breaking up, disintegration and elimination of such formations under the administration of Baffalo Lithia Water. In like manner this water seems to dissolve and eliminate the lacto-phosphatic deposits peculiar to gout.

The tonic and solvent effects of Buffalo Lithia Water seem to be due to the fact that its composition is approximately that of the serum of the blood (Shoemaker), therefore it becomes at once identical with the blood, and is more easily assimilated.

In conclusion I desire to impress upon those who have failed to obtain satisfactory results from the employment of Buffalo Lithia Water, and those who have not given it a trial in practice, one important fact, and that is, that the water must be taken regularly and systematically and for a reasonable length of time to insure its full effect and obtain the best results.

In chronic conditions of long standing the metamorphosis has, as a rule, been slow and extended over a considerable period, therefore it stands to reason that Buffalo Lithia Water must be taken for a corresponding period to secure its full therapeutic effects.



INDIGESTION

although a common complaint requires radical treatment.

PEPTENZYME

The only digestant that represents all the digestive secretions physiologically as found in nature, and on this account a perfect digestant. All other digestive ferment-products contain the active ferment of either Pepsin alone, or Pepsin and Pancreatin, isolated with chemicals, which greatly injure the digestive secretions. It not only aids but stimulates the normal digestive secretions. It cures as well as gives relief.

SAMPLES AND INTERESTING LITERATURE ON REQUEST.

Send for booklet and fee-table of our

Pathological, Chemical and Bacteriological Laboratories.

REED & CARNRICK,

42—46 Germania Ave., JERSEY CITY, N. J.

A Useful Combination in Catarrhal Affections, Etc.

By J. L. Hatch, M. D., New York City.

Quininne Glycero-phosphate { Nerve Tonic. Protoplasmic Regenerator. Anti-pyretic. General Tonic.

Creosote Benzoate { Stimulating Expectorant. Diuretic. Antiseptic. Anti-Catarrhal.

Eucalyptol Benzoate { Antiseptic. Antispasmodic. Increases mucous secretions.

The idea of makiug a solution of glycerophosphate of quinine in benzoate of creosote and eucalyptol was first formulated by Dr. Kugler, of Paris, who overcame the difficulty of administering them together in gelatine capsules from which fact they have become known commercially as Kugloids. Each capsule of 20 centigrams (about 4 minims) contains 2½ centigrammes (½ a grain) of a non-caustic, chemically pure solution of glycero-phosphate of quinine, dissolved in eucalyptol benzoate and creosote benzoate, and unites in a portable and elegant form the action of these three valuable therapeutic agents.

Let us look at the pathologic conditions in which Kugloids are indicated, so that a clearer and more intelligent idea of why they produce certain effects may be obtained, and not have them simply on account of the old maxim *post hoc propter hoc*.

As every pathologic lesion must be preceded by a change of function, we find that in the inflammatory diseases of the respiratory tract, they are preceded by a hyperæmia, this hyperæmia usually being induced by exposure to cold, or by irritating particles floating in the inspired air.

The hyperæmia is soon followed by a mucus exudate which is later augmented by leucocytes and red blood corpuscles which unless it be thrown off by coughing forms a nidus for the development of germs.

The process, which until this point has been limited to the mucous and submucous membrane of the bronchii and bronchioles, if not arrested proceeds by contiguity of structure to the surrounding tissues (the parenchyma), and the inflammation becomes more intense, at the same time pressure from the accumulated products of inflammation so press upon the blood vessels that anæmia now takes the place of hyperæmia, and degenerative changes occur, such as hepatization, yellow atrophy, caseation, etc.

Besides this, the toxines which are formed by the bacteria that gain entrance into this excellent culture media and thrive there luxuriantly. affect profoundly the nervous system and also exhaust the valiant white blood corpuscles in their strenuous efforts for supremacy.

This general picture covers the entire field of pathogenic changes from a simple acute Bronchitis, though chronic Bronchitis and Pneumonia, up to Pulmonary Phthisis, the different forms of Bronchitis depending only on the severity and length of attack; while the Pneumonias and Phthisis are due to their respective specific germs and the anatomy of the part affected.

Tuberculosis of the lungs is probably the most exhausting of all diseases, and the most difficult to arrest because the bacillus, which forms the toxic ptomains that saps the patient's vitality, is surrounded by an impregnable wall of connective tissue that shuts off all approach from the blood current. However, it is not only the tubercle bacillus that is at work undermining the constitution, but the staphylococcus and streptococcus, which linger more superficially in the mucous membrane and around the walls of cavities, producing a septic condition that we call the mixed infection and which is accountable for untoward results and neurasthenic conditions.

Specific Influenza, or "La Grippe" as it is most popularly known, is a specific, epidemic, and contagious disease of rapid diffusibility, the cause of which is generally admitted to be small coccobacillus discovered by Pfeiffer in 1892.

This disease like Phthisis Pulmonalis is prone to a mixed infection with the streptococcus and staphylococcus, thus unloading large quantities of toxines in the system which cause great nervous disturbances and exhaustion.

The first and most important feature then, after the invasion, is the germ, and this calls for an antiseptic; the pyrexia, night sweats, nervous symptoms and pain are due to the accumulation of the products of inflammation and toxines, these are first prevented from further elaboration by arresting the process of inflammation and killing the germ that produces them; then such material as remains must be filtered out from the blood through the bowels and kidneys, by means of purges and diuretics; the accumulations in the air passages will be removed reflexly by coughing aided by stimulating expectorants, and the irritated mucous surface must be soothed and gently stimulated to produce their natural secretions, so that an harmonious interchange between the air and blood can take place in the alveoli; after all these things have been accomplished, the nervous system must be toned up, the broken down tissues rebuilt, and the exhausted leucocytes rejuvenated; when all of this has been accomplished, then, and not until then, is our patient cured.

It will at once be seen that in Kugloids we have a remedy combining all the factors necessary for such results, and the clinical

Painful Monthly Periods.

MANY DOCTORS PRESCRIBE a combination of DIOVIBURNIA and NEUROSINE, (equal parts) to abate the PAIN and NERVOUSNESS of DYSMENORRHEA. DIOVIBURNIA acting as a reconstructor of parts affected, NEUROSINE allaying the pain, RESUSCITATING and TONING the Nervous System. Physicians can prescribe

DIOVIBURNIA and NEUROSINE

with impunity, as these Products CONTAIN NO OPIUM, MORPHINE, CHLORAL or other deleterious drugs.

Full size bottle of each, free, to Physicians (who have not already received same) desirous of giving DIOVIBURNIA and NEUROSINE an impartial trial, they paying express charges.

DIOS CHEMICAL CO., : : St. Louis, Mo.

Dr. Deimel Underwear

BEARS A LABEL WITH THIS TRADE MARK

During cold weather it gives to the body a most agreeable feeling of warmth and comfort, and is the best protection known against sudden temperature changes.

Booklet telling all about it. with samples of the material, free. Address.

The Deimel Linen-Mesh Co. (Originators of Linen-Mesh)

DEPT. Q. 45–491 BROADWAY, NEW YORK.

SAN FRANCISCO,	WASHINGTON,	BROOKLYN,	MONTREAL,	LONDON, W. C., ENG.
111 Montgomery St.	728 15th St. N. W.	510 Fulton St.	2202 St. Catherine St.	83 Strand [Hotel Cecil.]

The well-known manufacturers of Surgical Dressings and Supplies J. Ellwood Lee Co., Conshohocken, Pa., have the exclusive manufacture and sale of Surgical Dressings, Supporters and Suspensories made of the Dr. Deimel Linen-Mesh.

testimony of authority, both in Europe as well as in America, upholds this theoretical exposition most satisfactorily.

The rationale of the favorable action of all creosote preparations in pulmonary affections is not yet definitely elucidated.

Dr. Andrew H. Smith believes that the nascent creosote liberated in the intestinal canal, circulates in the blood and has a direct exterminating effect upon germs wherever it comes in contact with them. Some observers believe that the entire body is permeated with the antiseptic material that is thus introduced, and thus bacteria causing various diseases are met and destroyed. Others claim that the action of the creosote preparations is simply that of a neutralizer of the toxines the bacteria produce. Whether it be merely a restriction of the development of the bacteria or complete annihilation of them, the fact remains that after the exhibition of Kugloids the toxic manifestations are greatly reduced.

My own experience with Kugloids have been quite extensive and varied. I have used them in Grippe, acute and chronic Catarrhal Pharyngitis, Bronchitis, acute and chronic Pneumonia, and particularly in Phthisis Pulmonalis, in which I have observed its action in over fifty cases.

In grippe, it relieves the pains shortly after administration, reduces the fever, takes away the general feeling of lassitude which often develops into complete exhaustion and tones up the nervous system, and in cases that I have treated in this way, none have been followed by dangerous sequellæ.

Resolution in Bronchitis I found to take place much sooner than usual, and in Pneumonia, the temperature could be reduced 4 deg. in twenty-four hour; the areas of dullness and bronchial breathing rapidly diminished, and free and easy expectoration was established phenominally early.

In Tuberculosis the night sweats were stopped almost from the first, the fever markedly reduced, expectoration made easier and became less purulent where mixed infection existed, while the cough became less persistent and annoying. The most marked effect, however, was upon the general condition of the patient, there was less nervousness, better tone to the nervous and muscular system, the appetite was stimulated and assimilation improved. At no time was there any derangement of digestion nor irritation of the stomach. The dose varies according to the severity of the disease. In Grippe one Kugloid every hour can be administered, in Bronchitis six to eight daily, while in Pneumonia and Phthisis ten to twelve can be given in the twenty-four hours.

In Kugloids we have an elegant and efficacious preparation of three of our most valuable modern therapeutic agents, a veritable triumvirate that will conquer in any battle with inflammatory diseases of the respiratory tract.

20 November, 1902.

By the death of Mr. John Carnrick the ranks of the pioneer drug trade in the United States have lost their former leader. He was born in 1837 and at the age of 24, he took up the study of pharmacy in Jersey City, and was among the first to bring out proprietary medicines, together with the manufacturing of drugs for the physicians. Among these the first that came from his tutored hands was Lacto Peptins, followed by Maltine, and later Liquid Peptonoids and Pancrobilin, as well as others not here enumerated, and as these were in line with the present medical inquiry, he still more closely devoted himself to this special pharmaceutical work, selling the general line of the drug business to Parke, Davis & Co., so that his time might be given wholly to research.

Working along these lines, overcoming the faults of the old and bringing out new facts, which scientific research had brought to him, he developed Protonuclein, Peptenzyme and Trophonine, which have received the world-wide approbation of physicians.

About five years ago, feeling the strain of manufacturing with its untiring demands, he sought other lines and left the business, in which he was so long associated and had become so well known to the profession.

The old firm of Reed & Carnrick still retained his name and by the instillation of new blood have brought to perfection his later products. While the name of John Carnrick is better known to the former generation, the children fed on Lacto Preparata, invalids on Maltine, those in acute disease saved by Protonuclein and the dyspeptic cured by Peptenzyme, all unite to praise their author, who, although not known to them, has raised the drug trade to its present high standard.

NEW ORLEANS POLYCLINIC.—Sixteenth annual session opens November 2, 1902, and closes May 30, 1903. Physicians will find the Polyclinic an excellent means for posting themselves upon modern progress in all branches of medicine and surgery. The specialties are fully taught, including laboratory work. For further information address NEW ORLEANS POLYCLINIC, POSTOFFICE BOX 797, NEW ORLEANS, LA.

FIROLYPTOL

(TILDEN'S)

The Acme of Restoratives.

PALATABLE. PERMANENT. CERTAIN.

Formula: Eucalyptol.....aa gtt. x
Ol. Gossypii Sem. Purificat.
(Pancreatized)..... ʒ ss
Firwein (Modified).....qs. ʒ i
(Firolyptol with Kreosote same as the above with the addition of 10 minims Beechwood Kreosote to the ounce.)

As a primal factor and auxiliary agent in uprooting and aborting strumous and tubercular conditions and restoring to health the victims of these distressing ailments, "Firolyptol" and "Firolyptol with Kreosote" present to the physician all that seems possible in the light of present day therapy.

SAMPLES AND LITERATURE ON APPLICATION.

Manufactured only by

THE TILDEN COMPANY,

Manufacturing Pharmacists,

New Lebanon, N. Y. **St. Louis, Mo.**

WITHOUT WASTING A DROP.

PATENTED SYRO BULB.

The full number of antitoxic units of Stearns' Antitoxin can always be administered to a patient because the Syro-Bulb method of direct injection avoids the waste of even a single drop of the serum.

This is in striking contrast with the loss incidental to the use of the old-style flask bulb and hypodermic syringe.

Furthermore the Syro-Bulb way of using antitoxin is *safer* because it assures asepsis and furnishes a new, clean syringe for each patient; *quicker*, because the injection may be made at once, the needle being perfectly sterile; *more economical*, because it relieves the physician of the expense of a special syringe for serums yet adds nothing to the selling price of the antitoxin.

Stearns' Diphtheritic Antitoxin has given entire satisfaction, and the Syro-Bulb is unique, practical and entirely satisfactory. There is no loss of antitoxin as in cases where it is necessary to transfer serum from bulb to syringe.

D. W. STEINER, M. D., Lima, Ohio.

Stearns' Biologic Products are sold by progressive druggists —everywhere.

BIOLOGIC LABORATORIES OF

FREDERICK STEARNS & CO., Detroit, Mich., U. S. A.

Windsor, Ont. London, Eng. New York City.

At the Eighth Annual Meeting of the Western Ophthalmologic and Oto-Laryngologic Association to be held in Indianapolis, Ind., April 9, 10 and 11, 1903, the following will appear on the program:

Ophthalmologic.

1. Alt, Dr. Adolf, 3036 Locust St. St. Louis, Mo.—"Episcleritis."

2. Bradfield, Dr. J. A. L., Main and Fifth Sts., Lacrosse, Wis.—"Koratoconus: Etiology, Early Diagnosis and Treatment."

3. Brown, Dr. J. E., 239 E. Town St., Columbus, O.—"Some Experiences in the Operation for Complicated Cataract."

4. Bulson, Dr. A. E., Jr., 55 W. Wayne St., Ft. Wayne, Ind.—"Hysterical Amblyopia, with Report of Cases."

5. Colburn, Dr. J. Elliott, 34 Washington St., Chicago, Ill.—"Clinical Experiences in the Management of Phoria Patients: Failures and Successes."

6. Dean, Dr. Lee Wallace, Iowa City, Ia.—"Degenerate Ocular Changes Resulting from Consanguinity of Parents."

7. Donovan, Dr. Jno. A., 510 Hennessey Bldg., Butte, Mont.—"Electro-Cautery Treatment of Wounds and Ulcers."

8. Fiske, Dr. Geo. F., 100 State St., Chicago, Ill.—"Series of Glaucoma Cases."

9. Hotz, Dr. Ferd. C., 34 Washington St., Chicago, Ill.—"On Some Points in the Operation for Cicatricial Ectropium."

10. Reynolds, Dr. Dudley S., 304 W. Chestnut St., Louisville, Ky.—"Blepharitis Marginalis."

11. Samson, Dr. W. S., Lancaster, O.—"Sarcoma of the Choroid."

12. Sisson, Dr. E. O., Y. M. C. A. Bldg., Keokuk, Ia.—"Rare Ocular Lesions in Scarlatina."

13. Stillson, Dr. Hamilton, Hinckley Bldg., Seattle, Wash.—"The Influence of Environment on the Eye."

14. Suker, Dr. Geo. F., 100 State St., Chicago, Ill.—"Paresis and Paralysis of the Muscle of Accommodation."

15. Wescott, Dr. Cassius D., 31 Washington St., Chicago, Ill.—"Monocular Triplopia."

16. Wilder, Dr. W. H., 103 State St., Chicago, Ill.—"Retrobulbar Optic Neuritis."

17. Wood, Dr. Casey A., 103 Adams St., Chicago, Ill.—"Exsection of the Tarsus in Certain Forms of Chronic Trachoma."

Oto-Laryngologic.

1. Ballenger, Dr. Wm. L., 100 State St., Chicago, Ill.—President's Address.

2. Beck, Dr. J. C., 100 State St., Chicago, Ill.—"Superheated Medicated Air in Diseases of the Nose and Ear."

3. Ewing, Dr. Fayette C., 452 Century Bldg., St. Louis, Mo.—"Progress in Otology in Fifty Years Past."

4. Foster, Dr. Hal., Eleventh and Walnut Sts., Kansas City, Mo.—"Report of Cases of Laryngeal Paralysis Due to Aortic Aneurism."

5. Goldstein, Dr. M. A., 2858 Westminster Place, St. Louis, Mo.—"An Unusual Case of Spontaneous, Bilateral Hemorrhage from the Ear."

6. Keiper, Dr. Geo. F., LaFayette, Ind.—"Present Status of the Treatment of Mastoiditis."

7. Levy, Dr. Rob't., California Bldg., Denver, Col.—"Middle Ear Affections in Tuberculosis."

8. Lewis, Dr. Eugene R., 1258 Main St., Dubuque, Ia.—"Pseudo-Torticollis, with Abnormal Associated Movements of the Head and Eyes."

9. Means, Dr. Chas. S., 715 N. High St., Columbus, O.—"Tinnitus Aurium."

10. Moore, Dr. T. W., Huntington, W. Va.—"Some Cases of Asthma Treated by Removal of the Middle Turbinate."

11. Pynchon, Dr. Edwin, 103 State St., Chicago, Ill.—"The Principles of Rhinologic Practice."

12. Schadle, Dr. Jac. E. (by invitation) St. Paul, Minn.—"Inflammatory Conditions of the Upper Air Tract as they Occur in the Northwest."

13. Shurley, Dr. E. L. (by invitation), Detroit, Mich.—"Remarks of Etiology of Hypertrophic Rhinitis."

14. Stein, Dr. O. J., 100 State St., Chicago, Ill.—"A discussion on the Differential Diagnosis and the Treatment of Osteo-Sclerosis of the Mastoid Process."

15. Stucky, Dr. J. A., 45-9 McClelland Bldg., Lexington, Ky.—"Naso-Pharyngeal Fibroma—"Exhibition of Photographs and Specimens."

Dr. William L. Ballenger, President, 100 State Street, Chicago, Ill.

Dr. O. J. Stein, Treasurer, 100 State Street, Chicago, Ill.

Dr, Derrick T. Vail, Secretary, 22 W. Seventh Street, Cincinnati, O.

"The Documents in the Case."

We hope that every physician who receives the somewhat graphic description of the case of Mrs. S., and notices the marked and rapid improvement in her condition as evidenced by the differential blood counts, may apply to The Palisade Manufacturing Co. for information in regard to the treatment which proved so distinctly successful in this marked case of chloro-anemia. Those who have not as yet received this unique port-folio of legal-looking documents should apply for a copy at once before the supply is exhausted.

ηλεκτρον

Is the greek name for Amber. It is pronounced Electron.

Did you ever think over the fact, that Amber was the first product in which Electricity was found, and this because Amber is the most Electric Product known.

An Electric Machine

built with the same product as Amber as the productive element is an old thing made new again.

It can be used for X-Ray and Electrical Treatment, for the Treatment of Cancer, Epithelioma, Lupus, Sarcoma, Etc.

Write us for particulars before you buy.

The Sorensen Mfg. Co.

Revenna, Ohio, U. S. A.

Epilepsy--Dysmenorrhea--Nervous Troubles.

"From my experience with Neurosine and observation of the effects in the hands of my father, Dr. G. R. Duncan, Fallbranch, Tenn., I am confident Neurosine is unexcelled in the treatment of Epilepsy. The last case I treated, which was, however, Petit Mal, was benefitted immediately, the week before I commenced treatment, the patient had four seizures, that was the first week in October, he had another attack shortly after Christmas, which was due, I think to over-exertion and eating; this was the only one since institution of treatment. Neurosine is incomparable where indicated."

ORGIE DUNCAN, M. D.
R. F. D. No. 11. Jonesboro, Tenn.

"I prescribed Dioviburnia in a case of Dysmenorrhea with complete success. Neurosine served me perfectly in several cases of Nervous Troubles. They are now my favorite remedies."

J. W. PIERCE, M. D.
Beans Station, Tenn.

"I have given Neurosine a fair and impartial trial with very good results, and I heartily recommend it as the most efficient Neurotic, Anodyne and Hypnotic."

O. L. REYNOLDS, M. D.,
Covington, Ky.

Enno Sander Prize—1902-1903.

Essayist securing first place will receive a gold medal, of the value of One Hundred Dollars. The essayist securing first honorable mention will receive a life membership in the Association of the value of Fifty Dollors. Subject for 1902–1903: "The Differential Diagnosis of Typhoid Fever in its Earliest Stages."

Conditions of the Competition.

1. Competition is open to all persons eligible to active or associate membership in the Association of Military Surgeons of the United States.

2. The prize will be awarded upon the recommendation of a Board of Award selected by the Executive Committee. The Board will determine upon the essay to which the prize shall be awarded, and will also recommend such of the other papers submitted, as it may see fit for honorable mention, the author of the first of which shall receive a life membership in the Association.

3. In fixing the precedence of the essays submitted, the Board will take into consideration—primarily—originality, comprehensiveness and the practicability and utility of the opinions advanced, and—secondarily—literary character.

4. Essays will consist of not less than ten thousand, nor more than twenty thousand words, exclusive of tables.

5. Each competitor will send three typewritten copies of his essay in a sealed envelope to the Secretary of the Association, so as to reach that officer at least one month before the next ensuing annual meeting.

6. The essay shall contain nothing to indicate the identity of the author. Each one however will be authenticated by a nom de plume, a copy of which shall, at the same time as the essay, be transmitted to the Secretary in a sealed envelope together with the author's name, rank and address.

7. The envelope containing the name of the successful competitor will be publicly opened at the next succeeding annual meeting of the Association, and the prize thereupon awarded.

8. The successful essay becomes the property of the Association of Military Surgeons of the United States, and will appear in its publications.

Board of Award—1902–1903: Brigadier General Austin Flint, New York; Colonel Calvin DeWitt, U. S. Army; Lieutenant Colonel Victor C. Vaughan, U. S. Vols. Robert Allen Blood, President. James Evelyn Pilcher, Secretary, Carlisle, Pennsylvania.

Suprarenalin is the astriagent, hemostatic and pressor principle of the Suprarenal Glands, prepared by Armour & Company. It is a light yellow, stable, non-thxic, nonhygroscopic crystalline powder and possesses all the therapeutic properties of the adrenal substance. It is slightly soluble in cold water and alcohol; more so in these solvents when heated. In acids and caustic alkalies it dissolves readily.

Suprarenalin Solution (1:1000) is a slightly alkaline, stable, non-irritating preparation, that will be found of especial service in minor surgical operations, on account of its great strength and convenience. With the aid of the Suprarenalin Solution, bloodless operations may be performed upon the eye, ear, nose and throat.

The Snprarenalin Solution, on account of its uniformity, stability and great strength, will be found superior to other preparations of the Suprarenal Substance.

Ichthyol Ointment In Pneumonia of Children.

Dr. Franke has had good results from the use of 10 per cent. ichthyol ointment, spreading it the breadth of two hands over the pack of the patient, and applying over the dressing two or three times daily a wet pack for 1 to 1½ hours. He reports that in 48 hours the restlessness disappears, the temperature sinks considerably, the cough is painless and loose, and the appetite improves.—*Therap. der Gegenw*, 1902, No. 8.

The Charlotte Medical Journal.

VOL. XXII. CHARLOTTE, N. C., MARCH, 1903. No. 3

The Medical Man of the Future.*

By Stanley H. Graves, M. D., Norfolk, va.

Mr. President, Members of the Seaboard Medical Association, Ladies and Gentlemen:

As I appear before you to-night, I come with commingled feelings and pleasure and anxiety; due, in the first place, to the fact that it is dangerous to appear before the public as an orator; and secondly, lest I should fail fittingly to perform that duty which your kind suffrage has vouchsafed to my care. I should feel that I had not completed my task, should I withhold some expression, however inadequate, of my appreciation of your action, and I beg leave to extend to the members of this Society my heart felt gratitude for their esteemed and honored recognition. I have great cause for congratulation at being tendered the honor of speaking to so cultured an audience of Virginians and Carolinians as falls to my good fortune on this occasion. I assure you it is a position much coveted by me, and no modesty should forbid my saying that its recollection shall be held in memory as one of the happiest of my life.

I am a Virginian by birth, bound to my native State by all the filial ties of loyal citizenship and patriotism, but I never hear the name of North Carolina except with the greatest and most exalted admiration. The deepest emotions and tenderest sentiments have been awakened in my bosom, and waft me back to the time of 1861 and 1865, when the armed cohorts of the old North State joined hands with those of the Old Dominion to fight for a cause, which they knew was in the right.

"Carolina's sons rest side by side
With those of Virginia, she deemed her pride;
With equal valor fought and died
On Virginia's historic soil."

It is not my purpose this evening to discuss a technical or scientific subject: such papers are properly reserved for our subsequent meetings. I have, therefore, selected a theme of equal interest to the laity and profession; and, while I am aware of its great breadth and complexity, I can conceive of none that should occupy so prominent a notice and receive more careful consideration from the present and coming generation of medical men. My subject, ladies and gentlemen, is:

"The Medical Man of the Future."

I will remind you in the beginning that it is not my intention to enter into a lengthy discussion of what attainments the physician should possess, nor what relationship he should bear to the outside world. I would not dare to invade this field; for the solution of so important a question belongs to a thought more mature and a pen more fluent, than mine. But I shall try to outline, in a brief way, a course, which I believe, if adhered to, will once more find the physician in the place that he occupied fifty years ago—the supreme health adviser of his district. Then there will be no petty jealousies, no envy; each will admire the other for what he is, a real educator and a true physician.

Every man owes a two-fold duty to the community in which he lives, one a worker, the other as a citizen. Centuries ago, even at the dawn of creation, when Adam and Eve wilfully disobeyed their all wise Creator by eating the forbidden fruit of the tree of knowledge, God, in His rightful anger, sent forth the fiat that henceforth every man should gain his livelihood by the sweat of his own brow. From that time till the present, man's efforts have been directed in the path of honest toil. Being endowed with mind and intellect, all his efforts have been directed to the improvement and enlightenment of his race. Search the pages of History, and see if this does not hold true; wherever we find the greatest efforts, we relealize the noblest acts. Ancient Memphis, Thebes, Babylon, Athens and Rome, are worthy examples of this fact. Nay, more, it is true of all classes of men. The preacher, the lawyer, the farmer, the seaman, and the mechanic, however much they may differ in their various pursuits, have each a common principle that goads him on to labor for those things that make him superior to his fellows.

And of this army of workers I find none in any community more conspicuous and untiringly devoted to their duty than the medical profession. What has been said of our Savior; namely, that "He went about doing good," can truly be said of the physician. We find him at all times ministering alike to every class, high, low, rich and poor. In his never ending hours of toil, he enters palaces, holding their owners at his mercy; he seeks the huts of the miserable, whispering words of cheer and comfort; and in behalf of the suffering and needy, lifts his voice crying unto the world for help, in the name of charity, in the

* Delivered before the Seaboard Medical Association of virginia and North Carolina, at their 6th session held on December 15, 1902, at Wilson, N. C.

name of humanity, and in the name of God.

"Work for some good, be it ever so slowly,
Cherish some flower, be it ever so lowly.
Labor, all labor is noble and holy;
Let your great deeds be your prayer to your God."

In this world of intellectual achievements, when the mind is taking precedence over manual labor, there appears to be one great underlying principle necessary to the success of every individual. Lord Bacon has said: "Knowledge is power," and if this be true, there can be no requisite more important to the life's work of the future physician than a liberal education. For him who would instruct his fellow man along any line, self-knowledge is a prerequite. With the key of knowledge in his hand, in the use of which he has become familiar, he can unlock the door of wisdom, and find those pearls of great price, those gems of truth, which have lain hidden away, only awaiting the searchlight of a keen intelligence to be revealed. Let us then consider what education does for him, and what qualifications he should possess. We all realize that education has its purpose with the race no less than with the individual, and if his life is to be spent in usefulness and instructions to all mankind, he must needs be educated.

It is necessary then that the physician be educated, for no man can teach another what he does not himself understand. Education is a process of training the intellect, having for its object the cultivation of a sense of honor and duty, accuracy in observation, and an alertness in discriminating the important from the unimportant. Further, it gives its possessor the command of expression and the power to speak and write his native language strongly, accurately, and persuasively. Indeed, without this qualification, no one can aspire to true eminence, nor enjoy social or professional rank.

I venture to propound the question: is the present standard of education required of the matriculates by the majority of medical colleges a sufficient indication that they possess a scholarship and culture necessary to begin the study of my profession? I fear the answer must be in the negative.

This serious fault of a lack of academic attainments within the profession during the past quarter of a century, may emanate from many sources. The anxious father, with several sons seeking admission to the professions (and hindered by a lack of resources), deludes his mind into believing that the less said about the preliminary attainments the better. He hurries the untutored son into a cource of science, to pass through life incomplete, with a faltering voice, and neither hands to grip nor heart to dare. Again the portals of the Aesculapian temple have been thrown completely ajar to all classes of individuals. There has been a mad rush for those open doors with the mistaken idea of great ease, a money-making calling, and a social position assured after gaining the title of "Doctor." Nay, more, the faculties of many rival institutions, in their eagerness to excel, have accepted matriculates of known inferior attainments.

What then should the future medical applicant be required to know? My idea is that he should present evidence of training in mathematics as far as geometry and trigonometry, history, literature, natural and moral science, and Latin as far as Cicero and Virgil. A certain amount of classical training is imperative, regardless of the saying that the conjugation of a Latin verb, or the declension of a noun, has little to do with the adjustment of a fracture, the reduction of a dislocation or the ligation of an artery. Without at least a superficial knowledge of Latin, there cannot be a clear uderstanding of Anatomy or Materia Medica.

And, above all things, let him not neglec his mother tongue. "If there is one thing in this world," says DeQuincey, "that next after the flag of his country and its spotless honor, should be wholly in the eyes of a young poet (or professional man), it is the language of his country." The skillful command of English, a pure diction, a graceful and easy style. a use of words for their meaning rather than their length,—this, I say will place the Medical Profession upon a higher plane than years of patient toil. He, who possesses a good command of English, is ranked in the vanguard of the profession; he, who has it not, goes through life a miserable failure. Medicine is justly considered one of the learned professions; the skillful use of English is the true test of a liberal education. Let rhetoric, therefore, be taught in every school; for the failure to teach that golden art is a sin of the deepest hue.

There is a wave for higher education passing over the South. It has received no little attention throughout the States of Virginia and North Carolina, and here I enter an earnest plea that our medical colleges may not overlook this very important part of the future physician's training. Some colleges already require academic degrees of their students; consequently their graduates are superior to those of colleges not requiring preliminary eduction. As evidence of this fact, I bid you search the pro-

fession, and wherever you discover a man of eminence, you will find him a man of letters. The length of time for the degree of "Doctor of Medicine" has been lengthened to four years, and I doubt not that the near future will see all medical colleges requiring an academic degree of the matriculate. But let not the true physician think that the search for knowledge must terminate with the reception of his diploma. He should be continually seeking knowledge; he should learn from the stones on the ground, from the people with whom he comes in contact, from the open door of nature, and from the blue vault of Heaven, for

"He most lives, who thinks most."

When I speak of the physician's position in the education of the world, it is understood that I shall consider the question in its broadest sense, meaning his training morally, physically and intellectually; for the field of his work is a large one, especially when we consider the broad plane which his usefulness certainly should cover.

One of his first and most important duties deals with our present public school system. The State claims the child as its own so far as his education is concerned, and the cries of progressive time plead for the better physical and mental attainments of our boys and girls. The doctor will enter the school not as an enemy, but as a friend and benefactor; he will join hands with the instructor to develop both body and mind. Moreover, he will teach the youth the best way to treat this wonderful mechanism, which we term the body, so that it may attain the highest and best development, and by so doing leave the mind free for intellectual achievements.

At the very beginning of education, especially in our larger cities where school rooms are crowded with children of promiscuous characters, the knowledge and skill of the physician is required to determine the child's ability to do the work considered necessary. Many a child, who has attended school for years, has missed much of its instruction, simply because he was hampered by a defect of an eye or ear, or some nervous disturbance. This would have been corrected by a physician's examination. Many a brilliant mind has been pronounced defective, because the avenues of sense leading to that mind were embarrassed in some way, and only needed the healing touch of a physician to liberate those latent qualities.

I here enter a strong protest against any one individual passing judgment as to whether the child is "deficient, neurotic, an imbecile, an idiot, a degenerate or an incorrigible" I am sorry that these are terms carelessly used by many teachers, even by some of our foremost educators, but I cannot agree that there is such a large percentage of children mentally deficient or below normal as is claimed. Hence I would suggest that these children be examined by an expert body, and rules laid down for the teachers who are to guide them; therefore, the question of a medical examination of children upon entrance to school, and their daily inspection, becomes a vital one. Then too, it is the duty of the physician to become the health custodian of others, to speak with the voice of authority, and say that the child should not be forced through a curriculum which calls for long hours of confinement.

It is the physician who can speak from expert knowledge of the many evils arising from the imperfect construction of buildings, poor light, deficient heating and bad ventilation. In short, his position in our present educational system is many-sided.

He must, as far as possible, remedy defects in the physical development of pupils, and teach them the laws that govern the body, and how best to preserve the health of that body. His work is thus positive and negative. I verily believe the time is near at hand when every school will have its consulting physician, whose duty will be to see that proper hygiene is observed, and that the grounds and building are kept in sanitary condition. Statistics show that schools have been the cause and spread of many contagious diseases. And lastly, he should see that the duties imposed are not arduous, and that the physical side does not suffer. For a sound mind in a sound body is to be desired above all else.

No man deserves the name of a good citizen, who does not appreciate his own neighborhood and its inhabitants, and at the same time, is ever ready to lend a helping hand to a fallen comrade, or his good influence in the encouragement of every virtue and the discouragement of every vice. True greatness does not consist in holding office; he is greatest, who does the most for his city, his country and his fellowman. And in no truer and higher way can the future physician show his universal citizenship and usefulness, than by an endeavor to do all he can for the perfection of society, and to remove all obstacles on its road to freedom. For, if he be a man of high attainments and deep sympathies, he is himself a living embodiment of all those qualities that go to improve society; and in his daily walks, and especially within the home (which is the keystone of all society), his skill, his culture and his intellect, produce an effect for the betterment of his

kind, like unto that of the "Great Physician."

In the very foreground of our society two classes stand prominently, the preacher and the physician. They stand side by side, he who ministers to the soul, and he who ministers to the body; yet there are hours when the preacher gracefully stands aside and yields the situation to the physician, believing him to be better prepared, on account of his special training, to deal tenderly with that spark, which is about to depart to its immortal home. Again, the doctor bears a very close relationship to his patient. He is entrusted with special secrets and confidence; he must show himself worthy of them. In short, he must be a man above suspicion, possessing a purity of heart and hand that moulds nobleness of character and conscience, making him stand firm and immovable as the "Rock of Ages" against all pretenders and slanderers, and a sympathy so true and gentle that endears him to men and women in lasting fidelity.

But it is not alone in the home that the physician's influence is felt. He becomes a public benefactor when he aids the authorities in stamping out contagious diseases and epidemics. Let a dreaded disease make a successful attack on any community; he is among the first to fly to its relief, using every weapon that proves satisfactory in combatting the enemy. Nor does he cease until he has caused that grim monster, death, to beat a hasty retreat either into destruction or into endless night.

There is another great work before us as citizens, of which I wish to speak. Without it many of the most beneficient results of modern medicine cannot be enjoyed by all. I refer to a better organization, for the purpose of federating the profession in a more compact body, and for a unity of expression. The existing conditions teach us that much of our work cannot be carried on unless protected and enforced by state legislation. Further, the past has taught us that individual effort plays but a small part with the political trickster, and that most of our demands have gone peacefully to sleep in the pigeon holes of his desk. Hence a thorough organization is to be desired, for in our medical societies the compact of opinion lies in the views promulgated by the leaders. Thus public expression will be given to a collective opinion, which, backed by intelligence and strong organization, will make such demands upon the legislators that they will be afraid to refuse. The entire profession seems to have awakened to this point, and I believe the near future will see the secretaries of the various local societies in constant communication with the State, and the State with the American Medical Society. When such an organization is perfected, it will be an easy matter to concentrate the good influences of the Profession on any pending bill or ordinance at the most needed time, whether it be before a city conncil, a state legislature or a national congress.

I go further and stake a stronger view of the situation, and say that the day has come (regardless of the long taught impression that it is best for the physician to keep out of politics), when we need a fair representation in our law making assemblages. A correct opinion can then be given on many of the important questions that confront us to-day, such as; preventive medicines, quarantine, marriage, adulteration of food, prohibition of the sale of patent medicines, supervision of boards of health, and laws regulating the practice of medicine. We saw a bill recommended favorable not many months ago by the Virginia Senatorial Committee which would have turned loose a load of quacks and charlatans. But physicians are not bad politicians when they wish to act. They rarely ask political favors for themselves. Their work brings them into intimate contact with the masses, and this gives them a great influence over the body politic. Such was the fate of the bill just mentioned. Such a pressure was brought to bear upon the entire Senatorial body that it was withdrawn,

As far as I have been able to ascertain, we have no representative in either branch of Congress; in the Virginia Senate, but one; and four, in the House of Delegates. In your State there are two physicians in the Senate, and three in the House of Delegates. Comrades, is not this enough to convince you of this great need, both for the good of the people and the good of the State? I admit that it will take time, work and money, to bring about such an organizotion; such is the case with all great movements. Let us not despair, if we meet with a few disappointing reverses. Let us fight on. Our banner can be hidden only for a moment. Triumph will be ours.

Let us now study the physician from a professional stand-point. Unfortunately he has been greatly misunderstood in the past; his work encumbered by superstition, ignorance and charlatanry; and his societies, regarded as pleasure gatherings. But the present attitude of medicine to the world is very different. A careful and close observation of the present conditions, leads me to believe that there is no class of men freer from the corruption and mercenaly blight of modern competion, than the physician; nor more anxious to be understood, and have the co-operative help of an enlightened public. The medical man no longer

believes, nor assumes, nor deals with doubt; he is a seeker for facts, backed by an accurate philosophical knowledge. His seat is by the side of the thoughtful scientist of the new century, a searcher for scientific truths. Those who study but superficially the records of his work during the past twenty-five years, will find that he has discovered more to lengthen life, mitigate suffering, prevent disease, and improve conditions of civilized existence, than the entire preceding period. But this does not satisfy him; he is bent upon learning more.

Yet, regardless of all these discoveries, there are those who claim that the doctor is fast demonstrating his own uselessness, and in time will pass out of existence; every man will be his own physician. Others surmise that we will have no more sickness or death, finally drift into a garden of perpetual sunshine, health and rest. Oh, what a beautiful thought! What a beautiful land! But, my friends, allow me to answer this question once and forever. The physician will never be dismantled; the medical profession will never be displaced. Medicine is a necessity. Yes, the demand will grow as long as civilization progresses, invention increases, and human intellect develops.

Much is changing in medicine, but all for the best; it is becoming more learned, it is growing in intelligence. Do we not see the physician constantly striving better to understand, interpret and assist nature, that he may obtain happier results by a strict observance of the Divine Healer's law?

What I anticidate for medicine is not so much of actual work and discoveries startling the entire world, but rather an age of research. This appears to be the direction in which fleeting time is training its course. We have entered upon a century of research, truth and proof; nothing short of this satisfies the scientiflc mind. The new age may not be as brilliant as the past in its discoveries, but it will add materially to human knowledge. It will be an age of synthesis tending to bring together what former times have kept apart. Many diseases, now dreaded, will become extinct; many more will gradually be erased from the list; while a multitude of others will be so modified that they will be easily controlled under improved metnods of treatment. Yet, for all this, there will be a constant demand for the profession, namely for the following:

I. To teach the laws of health and of reproduction.

II. To aid Nature in curing disease.

III. To attend the accidents of life and of birth.

IV. To repair the exhausted system.

It is as a teacher that the future physician will pass much of his time. He will teach at the bed side, in the lecture room, and in fact, on every occasion. Nor will all his teachings be confined to the art of healing; he will teach prevention as well. Better exercise, better ventilation, bettre sanitation, cleaner premises and cleaner bodies, will be the result. Complete and perfect drainage, destruction of pests, pure and copius water supplies, these will he teach and labor for. And in this way public health will be improved and disease averted.

Nor will he stop at this. He will teach mothers how to feed their infants and the growing child. He will teach the many deleterious effects of, and the countless number of human ailments resulting from, improper food, *e. g.*, animal blood, raw flesh and stale milk. For such troubles as ptomain poisoning, trichina, ascarides, the various forms of tænia, and tuberculosis, are directly tracable to this source. In fact, I believe that the future will see as much stress placed upon the proper observance and inspection of food stuffs, as upon drugs. When this point is reached, we will be freed from many of the disease breeding microbes and bacteria, which flit around, and give the pathologist and surgeon so much trouble.

Much of his time will be given to teaching the laws pertaining to sexual life, there existing at the present time a lamentable ignorance on this very important subject, or I might say a distressing gap in the education of our youth. In the past our boys have gone to their schools and colleges, having this part of their education entrusted by the parents to the instructors and masters; and the masters, deeming it the parent's duty, have allowed all of nature's laws to pass untaught. It is here that the physician will come forward, putting aside all false modesty, prudery, and shamefacedness, and give such instruction to our rising generation, before they reach the marriageable age, that will save them from becoming victims of their own ignorance or the intrigues of dishonest advertisers.

The future physician will recognize that nothing can be accomplished without the help of Nature. We can only cure disease by adding the recuperative powers of the system. The life or death of the patient depends upon which has the stronger sustaining powers, the infection or himself. Hence the modern system of medicine will be a rational one. Much that is now empyrical will be explained; new drugs will be discovered, and old ones improved. Thus the physician, having a more extent

sive knowledge of the body, will be better prepared to assist Nature in combatting the infection.

In the field of Surgery there seems little for discovery, yet a great deal to be improved upon. Operations now considered dangerous will be performed with the greatest skill of the operator and safety to the patient. The better understanding of the nature of neoplasms will make their removal more complete, and their return less sure; a great deal is promised by the X-Ray treatment. Much may be expected in the attempt to establish a collateral circulation, as in the operations for cirrhosis of the liver and intersitial nephritis; much may be expected from improved anæsthetics. Fractures, dislocations and wounds of modern warfare, have been almost revolutionized by antisepsis and by the discovery of the X-Ray.

The last division, of which I speak, is one of growing prospects. As life becomes more complex, the demands upon the mind increase, and the pace at which we live quickens, there seems to come a similar complexity of disease, the result of a broken down constituion, which has not been able to meet these requirements. Thus we are having a series of nervous and mental disorders, poorly understood at present, and constantly calling for new treatment. It is in this division that the physician shall demonstrate, more than in any other, the control of the mind over the physical being.

As we contemplate the future physician, it will be necessary to take into consideration the progress likely to be made by the entire human race. Of course, there will be many changes as to the distribution of work; our ranks will be filled with men trained as specialists. Already we see them in our midst, and why should they not be there? The field of medicine has grown so large that it is impossible for a single individual to master the entire subject. If we can attain better results by this method, I see no cause for complaint. When this is accomplished, the physician will have provision for his regular rest, recreation and comfort, as is enjoyed by the poorest day laborer. Our profession of the future will excel that of the past. It will require more; it will claim increased talent, knowledge and experience. The institutions are each year lengthening their terms, and raising the requirements for entrance. Verily do I believe the time is near at hand when the physician will be required to present his hospital diploma as a requirement to practice, as he will his academic degree before becoming a Doctor of medicine. When this high ideal is reached, we shall have a body of educated men, with broad, logical minds, and a deep, brotherly love. It will matter little then who sees the patient.

And now, ladies and gentlemen, allow me to say, in conclusion, that the future physician will, of course, be only human, but being human, he will exemplify the highest human excellence. His honesty, education, high ideals, lofty enthusiasm and common sense, will make him a potent factor in progress. He will be one of the first to embody all the qualities that tend to make soeiety free and happy; he will lead men, deal with political difficulties, and cope with heresies. He will be a man with whom it will be a pleasure to meet. His comforting presence, sunny smiles, hopeful works, greatness of heart, and breadth of character, will make him a personality of strength and confidence. And finally, when his life is spent, and his armor scarred and battered by many a struggle fought for humanity against disease and pestilence, let all who know him lift up their voice, and say, "This was a man."

Medical School Inspection in the City of New York.*

By H. P. Johnson, M. D., New York City.

Mr. President and Members of the Medical Society of New York:

For many years the older physicians of New York City who had made a special study of the diseases of infancy and childhood, had been investigating sanitary conditions in the public schools and arriving at definite conclusions with regard to the spread of contagious diseases among and by the pupils.

The responsibility of keeping a school free from this class of diseases rested upon the principals and teachers many of whom how muchsoever they might be interested in their own safety and the protection of the children under their care, were not capable of detecting symptoms which would be at once recognized by the practiced eye of a physician. In May 1896 the subject was brought up for discussion before the Academy of Medicine and a committee was appointed by the President for further investigation of existing conditions and for devising ways and means by which daily examinations of all suspicious cases might be made by competent persons in whom could be vested the power of excluding from the school any child whose pres-

* Read before the New York State Medical Society, Dec. 29, 1902.

ence in the class room might become a source of infection.

Dr. George B. Fowler, the chairman of this committee in his report submitted a working scheme which with modifications was subsequently adopted. In October 1896, a communication was addressed to Mr. Charles Wilson, President of the Board of Health by Dr. Charles Roberts, the Sanitary Superintendent setting forth his belief that the transmission of contagious diseases among the children of this city was through their contact one with another in schools and recommending daily examinations. As a result of all the combined forces, the Division of Medical School Inspection was organized by the Board of Health. The city was divided into 35 districts and from the Civil Service list 150 men and women were selected whose duties were well defined by the Chief Inspector of the Division.

A widely distributed service and the assignment of schools whenever practicable to the Inspectors residing in the school districts enabled them to make early morning visits and all doubtful cases sent out by the teacher for examination were immediately excluded from the school if their condition justified such a procedure.

It was soon proved that the public schools had been regarded by many mothers as Day Nurseries where indisposed children could be made more comfortable and receive better care than in their own homes. Chicken pox, measles, whooping cough and mumps being looked upon as incidental to child life not requiring special care or treatment. Prophylaxis or isolation being unknown, excepting in those cases attended by a physician or reported to the Board of Health. In this initiative respect medical school inspection had been educative for parents as well as pupils and the number of sick children deliberately sent to school may now be considered negligible, but it is safe to say that hundreds if not thousands of children would be daily turned out of their homes and the doors locked at an early hour and they would be compelled to remain all day in the streets while their parents are at work or engaged at trade, but for the warmth and shelter offered by the public schools, to say nothing of the protective care and the moral and intellectual training so freely given.

The total number of examinations made by the Medical School Inspectors during the first year of the service was 108,628. Tho total number of exclusions for all diseases found in the schools was 6,829. In addition to the school work 50 of the inspectors were retained on "The Summer Corps" and as in previous seasons they were required during July and August to visit every family in every tenement house in the districfs assigned, to offer treatment to any sick person not receiving medical care, to advise mothers with regard to the care and feeding of their infants, to distribute tickets for the excursions of St. John's Guild, to give tickets for sterilized milk when needed, to reform whenever possible minor nuisances or report them to the Department of Tenement House Inspection. The following tabulated statement will give an idea of the total amount of work accomplished by the "Summer Corps" during one heated term:

No. of visits to tenement houses,	30,601
No. of families actually visited,	274,742
Minor nuisances abated,	4,057
Complaints of nuisances fowarded,	539
Circulars for care of infants distributed,	81,517
Revisits made to the sick,	4,429
Patients under treatment by other physicians,	5,402
Days service rendered,	2,159

In September, 1900, an epidemic of conjunctivitis made its appearance in the public schools. Over 100 cases were presented for examination on the opening day of one of the schools of the Children's Aid Society, and many more, who reported for admission only were enrolled and then taken home to be placed under treatment. The disease when promptly attended to yielded readily to the boric acid wash and cleanliness, but in neglected cases the trouble continued for months and in some icstances became chronic. The total number of exclusions for eye diseases during this year was 6258.

In the latter part of June, 1901, before the closing of the schools for the summer 16 oculists were appointed by the Board of Health for special eye examinations,

36 schools were visited and 55,470 pupils were examined. Of these 6,670 were found to be afflicted with contagious ophthalmia, 2,328 of these were of the severest type of trachoma, necessitating almost immediate operation. 3,248 were of trachoma of the milder type; 1,099 were of acute conjunctivitis (purulent). It was the opinion of the examiners that all of these should be excluded from school to prevent further infection. The number of cases in the boys were noticeably greater than in the girls. The percentage in boys, 28% to 3.6%. The percentage in girls, 18.6% to 1%.

In September, 1902, a new method of school inspection w adopted by Dr. Erns G. Lederle, the President of the Board o Health. This required daily morning ex aminations as before and in addition to thi a routine weekly examination of every child

in every class, special care and vigilance to be exercised in examining the kindergarten and primary classes. This examination to include head, eyes, throat and hands. The increasing prevalence of eye diseases, especially among the pupils of the lower East Side became a source of alarm. The number of cases of trachoma excluded and placed under treatment, often operative, filled the dispensaries and eye hospitals with patients. At the Department of Health an oculist was employed for special examinations and a portion of Gouverneur Hospital was set apart by the Trustees of Bellevue Hospital for the use of the Department for the children living and attending school in this neighborhood. From Dec, 17, 1902, to Jan. 11, 1903, inclusive (25 days) 950 new cases applied for treatment and 127 operations were performed. To test the intelligence of one class of Jewish boys, the writer asked if any one could tell what "Trachoma" meant and the word was written on the blackboard. One boy gave a very good description of the disease, and a bright looking lad took out of his vest pocket a clipping from a daily newspaper, entitled "Trachoma, how to prevent and how to cure it." A third answer, not so scientifically correct but extremely suggestive was "A new kind of comb to make the hair clean."

The services of nurses in the schools have been very valuable, for the treatment of minor surgical cases, catarrhal conjunctivitis, ring-worm on the face or hands, etc., thus limiting the number of exclusions and at the same time securing attention for conditions which might otherwise be neglected. Pediculosis capitis which has been the rule and not the exception in a large majority of the public schools is treated by the nurses at the home of the pupils, and the mothers are carefully instructed in the methods most successful in combating this disease. If these directions are not obeyed a second visit is made and after this the children return to the school unimproved they are excluded until their condition warrants a formal re-admission by the inspector.

A very interesting question arises in this connection with regard to the relation of health and life by hygienic surroundings.

On the top floor of a rear house in Pitt street in one rather small living room the writer saw in apparently well preserved condition the female representatives of four generations, in an ascending scale, the child, the mother, the grandmother and great-grandmother. The childen on the lower east side are for the most part rugged and healthy in spite of the fact that their homes are, many of them over-crowded, poorly ventilated and unclean. They are often scantily clad and can be seen any stormy day, even in msd-winter running to and from the school without any hats, umbrellas or overshoes. One little girl who was sent home by her teacher because her dress was not clean enough to be allowed to remain in the class room, returned in about an hour with it wet on her shivering little body, her mother having in the meantime washed it. The child was sent home again with very explicit instructions as to the treatment she should receive from her mother and they could not well be disregarded. Thus, through the medium of the school children are many wholesome lessons conveyed to careless, ignorant or indifferent mothers. As a further illustration of their habits is the fact that many of the children have their clothes sewed firmly on in the fall not to be removed under any circumstances until spring, and it is not an infrequent occurrence to find four or five dresses on a child, added one over another as the cold weather comes on, and these cumulative garments are kept on night and day. One of the principals who had been for a number of years in charge of a large school in this congested quarter of the city says: "It is a survival of the fittest. A child who lives to be old enough to be admitted to the public schools is as tough as a pine knot." It is quite as certain that the weaklings die in great numbers. The infant mortality for the year 1901, was, in the borough of Manhattan, 13,421. In October, 1902, in examining thousands of throats many hypertrophied tonsils were noted, not one in a state of acute inflammation and only two cases of post nasal catarrh. From September to December, 1902, inclusive the total number of examinations made by the school inspectors was 2,991,872. The total number of exclusions was 41,240. For the study of child character both native and foreign and for the study of racial peculiarities the work of the inspector is most favorable. In greater New York as elsewhere, the tendency to colonization is strikingly marked. In one school district the attendance may be exclusively Jewish. Polish, Russian and it is surprising to see how rapidly the children acquire a new language for many of them cannot speak one word of English when they enter the school. The "Jargon" or "Yiddish" is the language of the home and the neighborhood and the adult members of the family are often compelled to depend upon the children who act as interpreters for them in all the ordinary transactions of a busy life. The children of Jewish parents show in a pathetic way the centuries of

persecution to which the race has been subjected. They are not resentful of discipline and they are submissive to reproof and punishment It is difficult if not impossible to make them answer any question which will incriminate them and the old Spartan Law is carefully observed. They are indefatigable in their efforts to acquire an education and the ambitious parents never seem to allow an opportunity to be lost, often limiting themselves to the bare necessities of life that they may educate a son in one of the professions or a daughter as a teacher. In a house in Lewis street on the ground floor in the rear of a meat market a young man was studying in a room full of people. He was a student in the Bellevue Medical College preparing for his examinations and is now a practising physician. In another room under equally unfavorable conditions were two sons, one a student at the college of Physicians and Surgeons and the other at the College of Pharmacy, and many of the prizes even at the Universities are awarded to the Jewish competitors. Added to all this, their peculiar beliefs and religious rites are never allowed to suffer neglect and the boys are compelled after the public school hours to attend a Hebrew School to keep inviolate their own language and customs. If the father should die the eldest son assumes all this paternal responsibility and conducts with great solemnity the religious services at the family altar.

The Italian children are of the musical and artistic temperment. Some of their art work is quite remarkable. Their singing voices are sweet and melodious and they play naturally on musical Instruments. They are excitable and panics are likely to occur among them, spontaneously, as it were, unless the teachers are watchful. As a rule their habits are exceedingly unsanitary. Concerning diseases of the scalp they have a superstitious notion that they must not be treated medically and favus is called "Holy Soil." Consequently these diseased conditions are sadly neglected until the children apply for admission to the school and are handed over to the Inspector for examination and exclusion.

In another quarter of the City the school population may be mostly Irish. American children are not numerous and colored children are conspicuously absent from the so-called white schools.

These colonies are not going to remain on the lower east side. They are migratory and are already moving into more ambitious residential quarters in the various boroughs. A certain section of Upper New York is topographically described as "Little Italy." Nor can it be said of these people "Three generations from shirt sleeves to shirt sleeves." Their cycles are of indeterminate length and the Jews are emerging from a bondage to which they will never return. The immigrant people who are most likely to influence the destiny of Greater New York and therefore the most interesting are the Jews. The Alien steerage arrivals at the port of New York for the year 1902, as computed by the United States Immigration Authorities at Ellis Island were 551,-569 passengers as against 412,416 passengers in 1901. The largest recorded number for a single year since the Bureau of Immigration was established in 1819.

The Federal Laws while admirable in many respects should be made more drastic in *this*.

No immigrant should be allowed to land upon our shores whose sanitary condition would jeopardize the public health, and a physical examination should be made by the Federal Authorities. not superficially, but in the same thorough manner as that which has been adopted by the Board of Health of this City for the examination of the children in the public schools and in the homes. If these measures were persistently enforced as a matter of public policy we would be able gradually to eliminate the uncleanly and the diseased from among the immigrants, for those people intending to emigrate to America would prepare themselves for the trans-Atlantic voyage knowing the difficulty of effecting a landing in this country unless the sanitary requirements were fully complied with. Time is needed for such local reform measures as have been and may be inaugurated by the Department of Health of New York City. The condemnation and demolition of whole blocks of old and filthy tenement houses to create large spaces for parks, large playgrounds for little children, large resting places during the cool evening hours for weary men and women who have been toiling in the heat of the summer sun, large breathing spaces for all who come under their benign influence. Can this be accomplished without time, the great factor in all the Reform Movements of the world's history? Time is needed for the Board of Education to enforce its laws compelling all children to attend school, protecting children from engaging in mercantile or other employments until they have had the benefit of a common school education. Time is needed for the work of its finely equipped night schools for men and women, offering education in the languages, the trades and all the English Branches without money and without price.

With these splendid opportunities for physical and mental development all foreign people who are permitted to land upon our

hospitable shores might in time become well adapted to the new conditions in which they find themselves in our glorious country and be made to contribute generously to its welfare.

Is America a Spectacled Nation?

By Francis Valk, M. D., Professor Diseases of the Eye, New York Post Graduate School and Hospital, Fellow New York Academy of Medicine, etc.

Not very many years ago Germany was considered and recognized as the Spectacled Nation, but to-day America stands second to none in the number of young people and children who are wearing glasses. Every day we see school children, on their way to and from school, their arms laden with books and eyes adorned (?) with a pair of spectacles, and we observe the same with our young men and maidens, all less than thirty years of age.

Now all this has been particularly noticeable during the past decade or so and there must be some reason for this peculiar condition. Perhaps the solution may not be so very difficult to find if we consider the changes that have taken place in the studies of our school children and more especially in the tendencies and habits of our young people. May we not assume that the reason for this is the desire, so prevalent at the present time, to advance our children as rapidly as possible in their school studies and in which there seems to be a very decided advocacy on the part of the parents to encourage them to do so, thereby thinking more of the child's studies and mental advancement than of its physical health and the prospects of its future happiness Furthermore, instead of our young women being interested in household duties and pleasures and our young men interested in healthy out-door games and routine work of business, we find them all much more interested in the books of fiction at the free library and those so cheaply offered, in such vast numbers, by the book-sellers.

Now, having stated that Germany was considered the "Spectacle Nation," and that this country was next to it if not equal, if we look for the cause and answer for this statement we are met at the outset by the very interesting fact that in the two nations we have totally different conditions which necessitates the use of glasses. One condition we find to be the antithesis of the other, in other words, the Germans, as a Nation are near-sighted and the Americans as a Nation are found to be far-sighted with astigmatism. Conditions so dissimilar must arise from different causes, and yet there is a similarity between them. I think the environment, the habits and the ancestry of a people have much to do with these conditions. The Germans are a careful, painstaking and studious people, their interest in professional or scientific life and their use of copious notes in all their work and study must place, more or less strain on the seeing power that will at sometime require correction. The peculiar characters of their writing and printed matter are much more complex than those of this country. Their ancestry, as a people, is much longer than ours, hence there is also an hereditary tendency for a change in the structure of the eye-balls. Given then this tendency to study, the peculiar characters of their letters and the hereditary condition of the eye-balls that tend to myopia—though the refraction of the eye may be normal at birth—these all combined with the constant use of the eyes, with the contraction of the ciliary muscle and the stooping position of the body and head will produce a certain condition of congestion that must eventually lead to myopia or near-sightednes. This condition, if properly recognized and corrected, may not cause any serious trouble, while on the other hand if neglected, may proceed very rapidly leading to serious changes at the back part of the eye-balls and irreparable deficiency in the visual power.

Now let us take a glance at the other side of our antithesis, the condition that exists in our own land, as I have stated that we are also becoming a spectacled nation but from a different cause. The American Indian generally using the eyes for distant vision nearly all the time, the farmer boy as he follows the plough, and the milk-maid in her household duties do not require any aids to their vision. They do not strain the eyes at near points. Their eyes are used for distant objects and their vision consequently remains perfect. This fact has been noticed in the late war in South Africa, as it has been well demonstrated how excellent is the vision of the Boers as proved by their skill as sharp-shooters. Their distant sight is considered very much better than that of the English who live in a more advanced civilization. Nature's beautiful work is well shown by the perfect vision of all such people, for they use the eyes only as Nature fully intended they should be and if we could follow the same out-door life there would be no need of spectacles and the profession of the oculist and the optician would soon pass into "inocuous desuetude." But all our people cannot lead this ideal life amidst Nature and her works, we congregate together in our cities, therefore the range of vision is almost limited by the width of our streets; further-

more we are compelled to remain indoors the better part of the day, and the mind naturally seeking some diversion turns to books, so freely supplied by our stores and public and private libraries. Still further, our Nation being younger than Germany our children are not born with a tendency to myopia, and our printed and written characters being much plainer and more distinct this nation will not become near-sighted, certainly not in the near future. Then what is the condition of our national eye that requires so many of our children to wear glasses?

The investigations of Ely and others have proved that the children of this country are nearly all born with the short eye-ball, considered from before backward, or the far-sighted eye as it is sometimes called. This eye may possibly change to that of myopia but as a rule it remains in its original condition and while many will always retain good vision for all distances, yet others, from the increased strain caused by this far-sighted eye on the muscle that focuses the light rays, the extended curriculum of schools, the desire for knowledge or the pleasure of light literature will develop a condition of eye-strain or asthemopia that can only be corrected and relieved by the use of glasses. How many children do we find in our schools considered dull, stupid and behind in their studies? Yet it is simply because they are suffering from a strain on their visual power that they do not understand and cannot explain to their parents and when this is corrected we see them rapidly improve and advance. The subject of the examination of the refraction of our school children has been many times agitated but it must continue until the public will realize the necessity of a proper examination by one competent to do so in order that the child may continue with its work in the school. Civilization must go on advancing in this twentieth century, the "course of empire must take its way" and we must meet the march of progress by correcting this deficiency in the children by suitable and proper means.

Another interesting anomaly of the refractive condition of our people is that of astigmatism, generally associated with the far-sighted eye and requires very peculiar glasses for its correction. To describe it in a few simple words, I would state, Nature intended that the front part of the eye-ball or cornea—its true name—should be a section of a perfect sphere or ball with all its meridians having the same radius of curvature, but Nature does not follow its natural rules, it deviates in many ways and in the cornea of many persons we find a deviation that makes its surface not that of a perfect sphere but it is shaped more like that of the bottom of a spoon, or in other words, the radius of curvature is different in the two principal meridians, being much more curved in the one than the other. Hence the refractive condition is much different in each meridian, so much so, that in some people we may find one meridian of the eye-ball near-sighted and the meridian at right angles to that far-sighted. Now all Astigmatism may be corrected by the eye itself in young people, when the lens of the eye is very elastic and those who can enjoy out-door life do not feel the need of its correction but, if it is present in those who constantly use the eyes, then the symptoms of asthenopia or weak sight will begin before they have reached the age of thirty.

Furthermore, we have spoken of the eye in itself and of its seeing power, with the various anomalies that may exist in each eye separately, but now we must consider the work of nature as shown by a most interesting psychological process—the combination of the images formed on the retina of each eye so that we may see singly, or in other words, have binocular vision which gives us the perception of space and depth. As long as we have no difficulty with our sight the fact that we have two eyes concerns us but little, we do not realize that we have two eyes, yet all the time, in our waking hours, the most beautiful adjustment of the rays of light, forming the images on the retina, the mental process combining these images into one picture and then projecting those images back to the point from which the rays started, is constantly taking place.

Now we know how the images are formed on the retina but how are they combined or fused into one and what is the process that gives us the "third dimension of space" or the solidity of objects looked at? We find the answer to these questions in the reason that we look with both eyes from two different points, we have two images that appear similar and yet are really slightly dissimilar, one seen with the right eye the other with the left, yet combined into one by the adjustment of each eye through its muscular apparatus. I would illustrate this with the stereoscope. Here we have two pictures or photographs, very mach alike, yet taken from two points a certain distance apart and when seen through a lens combined with a prism, the objects of the picture stand out clear and solid, a true prospective view.

It is a well known physiological fact that each retina seems to have certain parts that correspond one with the other, as the center of each retina and the outer part of one with the inner part of the other and images formed on these corresponding

points, by a physiological process are only seen and appreciated as one. To produce this interesting fusion of these images each eye must turn about its center by the action of certain muscles that are attached to the eye-balls in front and that have their other ends attached far backwards in the orbits of the head. To keep the eye-balls steady these little bands are always in a state of tension, and as they contract or relax turn the eye-balls in any direction, so directing the line of sight of each eye on the object looked at. They are placed, one opposed to the other so that acting individually will turn the eyes up or down, to the right or to the left as may be needed and their combined action will turn the eyes in any direction but always so that the images will be upon corresponding parts of each retina.

An extremely interesting article by Raymond Dodge, Ph. D., appeared lately in Harper's on Vision in wnich the action of the eye-balls, for the preservation of binocular vision, is shown in a remarkable manner. We cannot move the eyes slowly, from one point of regard to another, but do so by rapid movements and periods of rest. That from point to point we are "practically blind" that is we are not conscious of the images on the retina as the eyes move about in the field of fixation, for example in reading, as the eyes look at a line on this page we can only see a small portion of the line at once. The eyes rapidly pass from word to word yet the muscles are at rest nine-tenths of the time.

A brief description of the parts of the eye concerned in the useful act of vision may be interesting at this time. Many writers have compared the eye-ball to the camera and in many ways that comparison is true but the eye has been given to us by Nature and Man has not as yet been able to equal Nature in the beautiful adjustment of the visual apparatus of the human eye. We have first the Sclera, a strong fibrous envelope that forms the eye-ball with its anterior part, the Cornea, through which the rays of light pass. Passing backward we come to the Iris, taking its name from its manycolors, which acts as a diaphragm to regulate the amount of light that passes in and to cut off the more peripherial rays that would blur the image. Next we have the lens, biconvex in shape, which in the young is beautifully elastic, and by the action of the ciliary muscles which surrounds the lens the rays of light are so adjusted that they will perfectly focus on the retina. The rays now pass through the vitreous body and form an image on the the retina or percipient layer of the eye-ball from which the image is then transmitted to the brain so that we may be conscious of all our surrounding. Inside of the Sclera we have a membrane called the Choroid, which surrounds the eye-ball, except at its most anterior part. This membrane is composed principally of blood-vessels to nourish the eye and a deep layer of pigment to prevent the entrance of any rays of light.

What a beautiful and complex provision of Nature all this must be, how intricate and yet how exact, but we are not conscious of all this mechanism and adjustment, we read our books, we enjoy the beauties of art, we see the delicate works of industry yet we never know nor appreciate all this beautiful work of Nature and Nature's laws as regards our seeing power until we find that we have transgressed these laws or that an existing anomaly asserts itself and Nature cannot perform the work our needs or desires require.

If all this be true surely a warning voice on the care of the eyes and the use of those necessary adjuncts to vision, the spectacles will not be amiss at this time. To those who are so fortunate so to have perfectly normal eyes these remarks may not apply. They will have no symptoms of weakness of the vision. They may use the eyes as long as reason will demand but not more, and even these fortunate ones will require the use of some aid to vision after they have reached the age of forty or forty-five. But to the large number who do have some anomaly of the visual apparatus or that of the muscles that move the eyes this is intended as a caution, to them and their children, as these are they who require the artificial aid of glasses and should understand the proper care of the eyes. To them an uncorrected refraction or a muscular error may cause untold suffering and deprivation of all the pleasures of life. They suffer from pain in the eyes and head, inability to use the eyes for any length of time, diminished vision, dullness, irritability and all the symptoms so freely told in the office of the oculist. We may start out then with the proposition that these eyes will need some assistance, that they must be used reasonably and the glasses correctly adjusted and properly worn. Hence the glasses should be exactly centered, that is when looking directly forward we must look through the center of the glass. Then the upper part of the glasses should be tipped forward about 15 deg. from the vertical so that in looking downward, as in reading, we may look through the center and the plane of the glass will more nearly correspond with the equatorial plane of the eye.

Let us consider what are proper condi-

tions that should surround us for the most easy and natural use of the eyes. The room should be well lighted, if possible with a northern light, as with this we avoid the brightness of the direct sun's rays with all its sharp lights and shadows. The walls of the room should be of some dark color, of which I think a dull red is very pleasing and with yellow or buff shades to the windows. Those working at a desk as bookkeepers and others should have their desks so placed that the light will come from behind and if possible over the left shoulder so as to avoid the reflection of the light from the page or the shadow of the hand when writing. In the use of artificial light the Electric or the Welsbach is very intense and the shadows are very sharp so these lights should be subdued by suitable shades and a forehead shade or visor may be worn over the eyes so as to protect them from the direct rays when looking up from the work to rest the eyes. An emmetropic or natural eye will stand an immense amount of work, as reading or writing, provided the surroundings are suitable for the proper use of the eyes but we must remember that even with these conditions we may use the eyes too much and what may be considered suitable for one may be decidedly injurious to another, so that under all conditions the eyes should find rest to the seeing muscle by occasionally directing the vision from the book or writing to some distant objects as looking out of a window. Nor should the eyes be used with the body in an improper position, as lying down or bending over the desk or table as we then throw too much strain on the muscles that draw the eye-balls downward, furthermore, reading on the cars is not advisable inasmuch as the constant moving of the body and paper requires a constant effort to adjust both eyes on the book and naturally an increased effort to see clearly and distinctly. An observance of these conditions is always due on the part of the parents as they should watch over the future welfare of their children. The growing child, with its soft elastic lens and easily adjusted focus may use the eyes for many hours without complaint, yet this in time may produce symptoms of eye-strain which will be difficult to overcome by the use of any artificial aids to vision, inasmuch as these viscious habits once contracted are hard to overcome and correct. Hence a watchful care as to the light, the positions in which the child hold its book, the occasional complaint of pain in the eyes or head, the desire for a bright illumination of the pages and perhaps an apparent dullness in the studies should place the parents on their guard in reference to the condition of the visual power of the child's eyes and the need of a suitable examination. In the writers opinion there may be a vast number of children whose eyes are perfectly adjusted for any reasonable amount of work, but at the same time, there is also a vast number who should have a most careful examination of the refractive condition of the visual apparatus as soon as the slightest symptom of weakness may be shown in any way. How often the examination should be made will depend on many circumstances as, if carefully made under the influence of a mydriatic it may be many years before any change in the glasses will be required.

In conclusion our Antithesis has been proven to be true if we may consider that our National eye is the far-sighted one, complicated, more or less, with that peculiar condition known as astigmatism and adjusted to binocular vision by the action of the external ocular muscles and our American boys and girls, stimulated by the advances of this twentieth century civilization, the strenuous life in the struggle for advancement and a living, and the desire for knowledge by reading, require some artificial aid for the correction of their refraction, while on the other hand our German friends, from their hereditary tendencies and the application to close work tend to become near-sighted or myopic and require a totally different glass to assist their vision than the American hyperope.

164 East 61st Street.

Croupous Pneumonia.*

By Dr. Marvin P. Skeen, of Wapanucka, I. T.

Acute Lobar or Croupous Pneumonia is one of the most dangerous foes of the physician. He who approaches the bed-side of a pneumonic patient without recognition of its danger, savors of the veriest charlatanry, and while he may apply his remedies with great confidence, oftentimes, his patient, reluctantly but surely, passes out into the silent rythm of the unknown ages.

Croupous pneumonia is an acute, febrile, parenchymatous inflammation of the lungs, characterized by a chill, an abrupt rise of temperature, cough, rusty colored sputum, an increased rate of respiration and great prostration. In studying the predisposing etiologic factors of this disease, we must give due recognition to age, sex, general debility, gout, rheumatism, alcoholism, climate, latitude, altitude and traumatism. But the immediate cause is the diplococcus pneumoniæ of Fraenkel.

The lungs form a special nidus for the

* Read before the Indian Territory Medical Society. Dec. 3, 1902.

ravages of this microorgangism. Each predisposing factor that depresses the vitality of the body lowers the resisting power of the system to overcome this bacterium. The pathological changes which occur in the lung may be divided into three stages:

First, a stage of engorgement or congestion; Second, a stage of red hepatization or consolidation; Third, a stage of gray hepatization. During the stage of hyperæmia, the blood vessels are filled to their utmost. The lung is heavier, crepitates and does not collapse when exposed to air. It is of a dark brownish red color. It is not yet wholly airless. After a few hours, this stage passes into that of red hepatization. Now the tissues when cut resemble the liver. The lung is larger, heavier and consolidated—not resilient but friable. The alveoli are filled with red blood corpuscles, leucocytes, epithelial cells, fibrin, diplococci, staphylococci and streptococci. The tissues involved have a reddish brown color. The vesicles contain no air and do not crepitate. They cannot be artificially inflated. There is no marked change in the alveolar walls or in the alveolar epithelium. This stage lasts from a few hours to several days. Following directly upon this is the stage of gray hepatization. The reddish brown color now fades into a gray. Partly due to pressure upon the blood vessels, partly to continued emigration of leucocytes, partly to fatty degeneration of the cells, partly to decolorization of the red corpuscles. The lung is heavier and more friable than in the preceding stages. The tissue now becomes like pulp and when cut a puriform fluid oozes from the surface upon pressure.

There is no given rule, pathologically or clinically, marking the transition of these stages from the one to the other, but each case is a law unto itself. In the very young and especially in the aged the transition to the third stage may be reached in a few hours.

Croupous pneumonia may terminate in resolution, abscess, gangrene or chronic pneumonia. During resolution the exudate liquifies and is absorbed and expectorated. The blood vessels and alveoli return to their normal condition and the lung assumes its normal function. Abscess, gangrene or chronic pneumonia usually end in death.

Lobar pneumonia is ushered in by a continued chill followed by an abrupt rise of temperature. This may range from 103 to 106 deg. F.

Pneumonia without pleurisy is painless, but there is a feeling of constriction about the chest. The respirations are increased in rate and panting in character. The ratio of the pulse to the respirations is not maintained, but the latter sometimes increase to one-half the pulse rate. The pulse is full, bounding and compressible. The heart often becomes weak and intermittent. The cough exists from the beginning. The expectoration is a frothy mucus in the first stage to be followed in a few hours by a reddish brown, brick dust sputum. As the lung clears the sputum becomes yellowish. The mahogany flush is ever present upon the cheek in well developed pneumonia. In the early hours of pneumonia crepitant rales are heard, but as consolidation advances they become bronchial as no air can pass into the vesicles. Percussion elicits dullness over the inflamed area. The vocal fremitus is increased. When resolution begins the physical signs are reversed. The ral redux is heard. The dullness disappears. The vocal fremitus decreases. These symptoms continue till the crisis which usually occurs on the fifth, seventh or eleventh day.

The diagnosis of a case of croupous pneumonia is not difficult when both the subjective symptoms and the physical signs are kept well in mind, unless marked by a complication.

It is not the object of this paper to deal minutely with the etiology, pathology or symptomatology, but to give such a general outline of them as will aid in a more explicit discussion of the treatment.

After a correct diagnosis has been made the patient's future depends materially upon the treatment; while unless great care has been demonstrated in its application, and even then oftentimes, the doctor's reputation passes away as surely as his patient who rests silently beneath the "shade of the trees."

The treatment of pneumonia may depend in some particulars upon a condition that is still debatable. Whether it is an acute general self-limited disease with local manifestations, or whether it is a local disease with general symptoms. Can pneumonia be aborted? This depends upon which of the above theories is a fact. If it is not self-limited, then it may be possible by some therapeutic application to stop its ravages. When the diplococcus has begun its work and pneumonia has developed it is extremely doubtful that it can be aborted by any method now known to scientific therapeutics. When purported to have been aborted, there must not have been an inflammation existing in the lung, but merely a determination of blood to these parts. It is the one great desideratum of scientific men to abort acute inflammatory diseases. When this shall have been accomplished one of the greatest advances of applied therapeutics will have been consummated.

Regarding pneumonia as a self-limited disease the treatment should be directed more especially to the general condition of the patient than to the lung itself. The pneumonic process cannot be influenced by medicines. Venesection is now obsolete. Once considered important it is now rarely debated by the physician and never for the disease itself, but if at all, for the symptoms sometimes manifested in the sthenic patient.

In the beginning the intestinal tract should be emptied. The mild chloride of mercury is the most efficient and satisfactory when given in broken but sufficient doses. Free catharsis but not depletory evacutions is desired.

Sulphate of quinine should be given in three or four grain doses every four hours. Dover's powders in five grain doses act well upon the skin and allay the uneasy feeling or pain in the chest. It is almost useless to give one or two grains of this drug. The kidneys in some cases may need sweet spirits of nitre or nitrate of potash.

A high temperature and heart insufficiency are two of the most dangerous factors that confront us. To control the temperature without depressing the patient is sometimes difficult. Antifebrin, phenacetin, or compound acetanilid powder may be used with good effect. The effect of these upon the heart should be carefully noted. Large doses should not be given. Sponging with water, or water and alcohol is very effective. This should be done vigorously and continued for several minutes. The cold bath and pack are recommended by some but they are too depressant for most cases. Tincture of aconite, save in small doses for children and veratrum viride and antimony are contra-indicated. While they would lower the temperature and lessen the pulse rate for a time they would do so at the expense of cardiac power.

As the pneumonic inflammation progresses the fibrin in the blood increases, the consolidation in the lung becomes complete and extra work is placed upon the heart. It now becomes essential that as more heart force is demanded, it must be aided in its work. Now great care and keen judgment are necessary. If the extra cardiac force can be supplied by stimulants until the crisis has passed the patient usually recovers. Stimulants are indicated when the pulse is weak, wiry, compressible, intermittent, or dicrotic. Strychnia in 1-30 grain doses every five or six hours is one of our surest remedies. If the heart is very weak and rapid digitalis performs its part well by slowing and strengthening the beat. Citrate of caffeine or strophanthus may be used. Alcohol should be given freely. Each case is a law unto itself as to the amount necessary. Alcoholics require a a great deal of it. Watch the cardiac action and give it for the effect. Over-stimulation must be guarded against. Whether much is to be accomplished by the use of expectorants until after the crisis is very doubtful. If we recall the pathology and the loss of function of the impaired lung, it would seem that little could be accomplished by giving a drug that is chiefly eliminated by the lungs when the alveoli are filled with the pneumonic exudation. If in giving an expectorant, the idea is to lessen the formation of fibrin in the blood and to liquify the exudation, theoretically, it is good, but practically, it is of little use. To give any medicine in such quantities as to lessen fibrin formation is only to irritate the stomach and produce severe vomiting. Such expectorants as the carbonate or chloride of ammonia, combined with simple syrup, syrup of wild cherry, compound syrup of white pine, have been used with seeming good effect. Aromatic spirits of ammonia may be used as a cardiac and respiratory stimulant.

The local treatment of pneumonia resolves itself into the application of poultices, turpentine stupes, dry cups and blisters. The stupes when applied very hot and often are possibly preferable. Poultices may occasionally give relief, but as a routine treatment are of little value. An epispastic should only be applied in those cases where resolution seems delayed. The promiscuous use of blisters simply because the patient has pneumonia, is to be deplored. The patient should be given rest. If it cannot be obtained by the use of the milder narcotics—an occasional dose of morphia should be given. Too much restlessness and nervous shock allowed to continue unrelieved in the onset will demonstrate their evil tendencies when it is forever too late.

The patient should be encouraged to take nourishment. This should be given liquid or semi-liquid, such as milk, beef-tea, eggs.

The sick room should be large and well ventilated.

During convalescence iron and quinine, or compound tincture of cinchona, elixir calisaya, tincture nux vomica and nutritious diet are good to hasten recovery.

If by this paper, such a discussion of this disease and its treatment shall have been stimulated, that the writer and especially his patients will be benefited thereby, it shall have served its purpose.

Methyl Alcohol Poisoning.*

By G. E. Hartshonn, M. D., Oculist and Aurist to Choctaw, Oklahoma & Gulf Railway Co., and All Saints' Hospital, South McAlister, Indian Territory.

Mr. President, and Members of the Indian Territory Medical Association:

This is a subject upon which very little has been written in the journals, and I have been unable to find a text book which even mentions it. In fact it is a product of the past five years; and, while of comparative rare occurrence, it is of none the less importance to us as physicians. I believe that unless a very large dose is taken we may, by proper remedies, succeed in saving life and that which most of us value more highly—sight.

Prior to 1897 we had no records of any fatal cases of poisoning from wood alcohol, probably from the fact that it then possessed such a terrible odor that no one could mistake it for ethyl alcohol and the taste prevented any one from drinking it intentionally; but by a process of refining it has been robbed of its taste and odor and as well, its safeguard. It is now sold under the name of "Columbian Spirits" and is used in making Bay rum and cheap extracts, as well as for mechanical purposes.

In the past four years there have been about thirty cases of toxic poisoning from it reported in medical literature, and I have seen two cases within the past ten months, and know of three more; besides seven others who were slightly affected by drinking small quantities.

Some of our writers make a distinction in their cases, owing to whether they drank the pure or diluted methyl alcohol, or Bay rum, or ginger and extracts; and still others have reported cases of fatal poisoning of men working in vats with shellac made up with wood alcohol; but I shall put all in the same class as I think the same toxic agent is responsible in all of them.

The history of all of the cases reported are about the same so far as the symptoms and signs are concerned, and are, briefly: from four to twenty-four hours after taking the poison there is dizziness, nausea and vomiting, dilated and sluggish iris, progressive blindness, pain and tenderness over eyes upon pressure or motion, sema-coma, and if death does not result in a few days, there is a return of vision which is usually only transatory, relapsing in a few days again into total blindness. Though the above is the usual termination of the majority of cases we now and then find some of them recovering without eye symptoms, due I think, to several different agents. The most common being the small amount of poison taken; next in line would be early and appropriate treatment; and then we find some individuals who do not seem to be so susceptible to its poison. One case I saw with Dr. Moulton, of Ft. Smith, and reported by him in a paper read before the Fifty-second Annual Meeting of the American Medical Association, in which the victim was totally blind, while two other men who drank equally as much were not in the least affected by it. The three only drank one pint of Bay rum. In 1899 five men drank about the same amount of wood alcohol, in South McAlister; two died, one became totally blind while the other two were not seriously affected.

The ophthalmoscopic signs are, in the early stages dilated and tortuous retinal vessels and general retinal congestion, then in the later or atrophic stage there is a lessening of the caliber of the vessels, and a general paleness of the whole retina, with all the signs of atrophic retinitis. Where total blindness does not occur there is usually a central scotomota and a marked diminution in the field of vision.

The following are some cases which have never been reported as yet and I add them to the records as original cases:

Case 1. W. F. Munsey, white, aged 35, drank, with four others, eighteen one ounce bottles of lemon extracts, about 2:30 p.m., by night he was vomiting, had severe headache was very dizzy and complained of soreness over eyes and down the spine; vision began to fail in twenty-four hours and before dark the second day he could just see a train two blocks away, but could not tell whether it was standing still or moving. The eighth he could count fingers at three feet, and then gradually failed until the tenth, when he could only discern large objects that passed between him and the light of a window. The tenth I was called in by Dr. A. Griffith, his family physician. At that stage I advised pilocarpine and strychnine. There was still some hyperemia shown by the veins being larger in proportion than the arteries, but there was a marked whitening of the retina. Did not see the patient any more until June 10th, when I found vision nearly normal except a slight contraction of the field.

Case 2. J. D. F., aged 30, white, drank about three ounces of what he bought for a very fine grade of whiskey, but which had undoubtedly been some very bad mixture in a bottle with a good label on it. He had pains upon movement of the eyes, and considerable pain upon pressure, also sensative-

* Read before the Indian Territory Medical Association.

ness over the larger nerve trunks; the pupils were dilated and sluggish. The symptoms all passed off in four or five days, under pilocarpine and potassium bromide. Seven others who each took a drink were slightly affected with headache.

Case 3. George Golden, white barber at Haileyville drank one pint of Bay rum with suicidal intent, March 23rd of this year and died within 12 hours.

Please let me still add another idea, suggested by an article in "Baltimore Items" of Feb. 7th, Journal of American Medical Association, page 387; where Drs. Herbert Harlan and Hiram Woods, take the stand that wood alcohol is a toxic poison and that a certain man was made blind by drinking it; which Dr. C. A. Crampton a government chemist; W. A. Puckner, a chemist from the University of Illinois and F. P. Kuehan, a flavoring extract manufacturer, of St. Louis, Mo., testified that, in their opinion, wood alcohol is not poison.

Of course all men have their right, in this free country of ours, to their own opinions; but I have to say to them, that certainly their opinion would not have much weight upon the minds of people who have seen people die from the effects of the drug, with no possible chance for any other agent to cause it. And in the words of a very homely comparison of this client in jail; "It is not a question, Mr. Barrister, of whether they can put me in jail or not, for I am already there."

Case 4. Ed. W., aged 16, Dec. 23rd, 1902, drank nearly a pint of dilute wood alcohol, thinking it to be ethel alcohol. Died within six hours. I did not get to see this case, and could get no reliable information as to symptoms, etc.

I present these cases to illustrate the uncertainty of its action on different individuals, and also to point out the treatment, which has been the same in all the cases where success has followed efforts to combat the poison after it has once taken effect. Nearly all of the cases thus far reported have either ended fatally or lost their sight unless treated with the bromides and pilocarpin in the first stages and strychnine and pilocarpin in the later stages.

We, as physicians, should always think about and be prepared to treat these cases, and look with suspicion on cases of drunkenness attended with unusual symptoms, especially where men drink everything that will make them drunk—from ten year old Kentucky Bourbon down to red ink and Choctaw beer.

Granulated Lids.*

By F. M. Duckworth, Claremore, I. T.

Mr. President and Gentlemen of the Association:

This subject has probably been as thoroughly discussed as any or most any subject in medical literature, according to its prevalence and importance. Its occurrence, as we all know, is almost universal, and this fact together with the suffering, and the dangers to that most precious gift, the sight, makes its importance no small matter. So that I believe it is to our best interest and to that of the people to keep ourselves well posted concerning the most advanced pathology and treatment of this malady. I believe no physical disability of a chronic nature produces more mental and physical distress than is found among the sufferers from chronic granular conjunctivitis. Sore eyes like skin diseases, we know produces about as much mental distress as they do actual physical suffering—inability to perform ordinary duties without discomfort and inconveniences without number, harass the unfortunate not to speak of the disfiguration and non-cosmetic effect, that transform the pleasantries of life into a miserable existence. It enters the home circle and makes tears of bitterness. It invades our noblest institutions and weakens the pulse of educational progress. Apparently we do not have many of these cases in our country practice, yet in the aggregate, I think we would all be surprised; hardly a physician in all the country, but what has had under his advisement or care several cases each year. Hardly a day passes that we do not see one or more victims of this affliction with shaded light and disfigured countenance, patiently plodding through life—a life that is a burden.

Authors describe several forms of this disease among them acute granular conjunctivities (which is classed uncommon in this country) which has a tendency to improve naturally after 2 or 3 weeks, by absorption of the granulations. More common in America are the chronic forms, i. e., the form known as trachoma and the follicular form. The latter two are found separately and intimately associated. A close study is often required to discriminate and the chief distinguishing feature is the contagious nature of trachoma—while the follicular form is non-contagious. A close examination of the mucous surface of the lids, shows them thickly studded with pink or grayish pink elevations. In trachoma these elevations are composed principally

* Read before the Indian Territory Medical Association at Muskogee, Dec. 3, 1902.

of connective tissure and usually extends over the palpebral and sometimes over the bulbar conjunctiva, while in the follicular form the elevations spring from the glands and stroma and are confined generally in their distribution to the lower fornix.

Just now the Eastern States are threatened with an invasion of "oriental" or "Egyptian" trachoma which is apparently more virulent and more contagious than the forms we have met. No doubt we will have an opportunity to observe it and I think we should not be tardy to emulate the example of eastern health officers in urging legislation to check the ingress of this disease. I believe the honest effort of every physician should be directed toward the education of the people regarding the prevention of disease, and in this case the "ounce of prevention" is certainly due and it is not "folly to be wise" when "blissful ignorance" ends in granulations.

The able editor of the Interstate Journal has said there is no nobler task set before the physician than to teach mankind how to prevent disease. All the great achievements of modern medicine culminates in prophylaxis. The exclusion of emigrants afflicted with trachoma, modern antiseptics and ordinary hygienic precautions has lowered the prevalence of this disease in Massachusetts at least 50%. Why should not any State or community be benefited by such measures ? The modern treatment of trachoma and conjunctivitis of the follicular form is both surgical and antiseptic. After the evacuations of the follicles, the crusts and the surface is thoroughly scrubbed with 1 to 1000 bichloride solution. A collyrium of the same in the strength of 1 to 5000 should be used daily for several days with expression of any returning granulations. I have always used the Knapp roller forceps for expressing the granules. I have found this treatment more permanent and less tedious than the old method of treating with cupric sulphate and the silver preparations. Statistical reports gives the time required for treatment by the old method at from 3 to 6 months with no assurance of a permanent cure for the latter treatment from 10 days to 2 months with decidedly better results.

Considering the tediousness of the treatment and the irregular control of your patient in the country, this part of our work is often trying and difficult. Most of these cases are advised by their physician to seek the aid of the specialist and it is right they should, but when we find a patient unable financially or otherwise to do this, what is to be done? I say, do it yourself. There is a moral sense of duty to the patient and the public that should not be neglected. I believe that with a little patience and care, the doctor could not only make such cases remunerative but a reflection upon his skill and a blessing to mankind.

Intravascular Antisepsis.

Fortescue-Brickdale (The London Medical Lancet) reports the result of two series of experiments undertaken (1), to determine the toxicity of various antiseptic substances when injected into the veins of rabbits; and (2), to discover if any of them exerted an influence on the course of an artificially produced septicæmia. His conclusions were as follows: First series. (1) That perchloride of mercury, oxycyanide of mercury, and protargol cannot be injected intravenously into rabbits in sufficient strength to produce an antiseptic effect lasting over several days. (2) That a mixture of chinosol and formic aldehyde is too toxic, even in minute doses, to be of any use for practical purposes. (3) That chinosol or formaldehyde can be injected intravenously so as to produce a solution which would have an inhibitory action *in vitro*. (4) That sodium taurocholate can be injected in small doses, but that toxic effects manifest themselves after a few days.

Second series. (1) That rabbits injected daily with non-toxic doses of oxcyanide of mercury, formaldehyde chinosol, protargol, or sodium taurocholate are not thereby protected from the usual effects of the previous inoculation of virulent anthrax; and (2) that chinosol and formaldehyde in large toxic doses so depress rabbits infected with the pneumococcus, that they die sooner than an untreated animal.

Generally, then, it may be said that, at present, there is no experimental evidence which would warrant the assumption that the course of septicæmia in animals can be influenced favorably by the intravenous injection of antiseptic substances, and that the only result to be obtained by pressing such a treatment beyond the maximum non-toxic doses is to hasten the death of the animal. In view of the results described in this paper, and those obtained by former investigators it seems useless to continue trying to apply clinically a method which, while by no means free from special dangers and difficulties, is at present unsupported by any experimental evidence, either as to its present advantages or future prospects.

Charlotte Medical Journal

EDWARD C. REGISTER, M. D., Editor.

No. 36 South Tryon Street, - - - -

- - - - - - - - - - - Charlotte, N. C.

DIAGNOSIS OF TYPHOID FEVER.

Many difficulties surround the diagnosis of even typical cases of this fever. The most careful, the most experienced and the most skillful physician often meets with cases where it is impossible for him to say positively as to the condition present. The symptoms of tuberculosis in many of its forms closely resemble those of typhoid fever and it is often extremely difficult to exclude them in doubtful cases. Acute miliary tuberculosis, typhoid fever and often tubercular meningitis are extremely difficult to differentiate, especially if the stomach and intestines have become involved with attendent diarrhœa and tympanities. Tubercular peritonitis may resemble typhoid fever and often confuse even the expert. The mistake has often been made in the diagnosis of pneumonia, the early symptoms of this disease often look very much like those of typhoid fever, however, this error should not be as common as it is. Any one at all familiar with physical diagnosis and the unmistakable characteristic symptoms of pneumonia should not be confused in making the distinction. The writer has often hesitated in making a diagnosis between appendicitis and typhoid fever, but a little time and the proper consideration of the characteristic symptoms of each disease will in a majority of cases enable you to make a diagnosis with a degree of certainty. Up to a few years ago a very common difficulty met with was to differentiate intermittent and remittent forms of malarial fever from typhoid, but now since the Widal's test has become so valuable and in such a large per cent. of cases available and the use of the quinine test should enable this to be easy. The writer has observed in hundreds of cases the value or the specific action of quinine in all forms of malaria. It will unquestionably, if given properly, cure within two or three days any case of malarial fever. If it does not the fever is due to causes that quinine does not affect and should not be called malarial fever. It was a great disappointment to the medical world when the serum test of typhoid fever was shown not to be always available or positive. At the same time it is of great value. One reason that it has been accompanied with so many failures is on account of its not being properly used or repeated often enough.

SMALLPOX IN NORTH CAROLINA.

According to the Marine Hospital reports for Jan. 9, 1903, North Carolina has more smallpox than any other State, although it is widely spread throughout the entire country. The following table taken from the Cincinnati Lancet Clinic condensed from this report referred to will give some idea of the extent and mild type of this disease. From Dec. 27th, 1902, to Jan. 9th, 1903, new cases were reported as follows: California, 17 cases, no deaths; Colorado, 9 cases, no deaths; Connecticut, 1 case, no death; Georgia, 3 cases, 1 death; Illinois, 9 cases, no deaths; Indiana 467 cases, 6 deaths; Kentucky, 216 cases, 1 death; Louisiana, 1 case, no death; Maine, 1 case, 1 death; Maryland, 1 case, no death; Massachusetts, 55 cases, 14 deaths; Michigan, 101 cases, 1 death; Minnesota, 254 cases, 1 death; Mississippi, 10 cases, no deaths; Missouri, 41 cases, no deaths; Montana, 1 case, no death; Nebraska, 14 cases no deaths, New Hamshire, 37 cases, no deaths; New Jersey, 10 cases, no deaths; New York, 4 cases, no deaths: North Carolina, 515 cases, 21 deaths; Ohio, 87 cases, 13 deaths; Pennsylvania, 113 cases, 12 deaths, Rhode Island, 4 cases, no deaths; South Carolina, 1 case, no death; South Dakota, 1 case, no death; Tennessee, 6 cases, no deaths; Utah, 20 cases, no deaths; Washington, 2 cases, 2 deaths; Wisconsin, 25 cases, no deaths. Out of all these cases, 2,251, only 74 deaths were recorded. According to these reports the disease seems to be increasing in Indiana, Kentucky, Massachusetts, Michigan, New Hampshire, North Carolina and Wisconsin. North Carolina is decidedly in the lead having reported during this short period 515 cases. A decrease is noted in Illinois, Minnesota, Missouri, Nebraska, New Jersey, New York, Ohio, Tennesse and Washington. While these reports are not as full as they might be, they give a pretty correct idea ef the prevalence of this malady. No doubt we have a great many cases that have never been reported. The disease seems to be of a very mild type as the death rate clarly shows and it is natural to suppose that cases often exist when no doctor is called in.

It is unfortunate that we have to contend with so much prejudice against vaccination as a preventative against this disease. It is still more unfortunate that we have to contend with bogus vaccine virus and often septic vaccine. Too much attention cannot be paid to this subject. We ought to be very rigid in our demands for pure vaccine virus and very exacting with the manufacturers of this product. It means so much to the profession and the public. We often

think that it would be a good plan to go back to the idea of humanized virus and arm to arm vaccination and do away entirely with the bovine virus. The commercial virus no doubt in a large per cent. of cases is aseptic and the effect is everything that we wish it to be and still there is no doubt in my mind that there still exists a per cent. entirely too large where the virus is septic, worthless and dangerous.

COLD WATER AND NERVE ENERGY.

Recent physiological research has proven that nerve energy is intimately associated with the material elements found in the nerve cells; thus a nerve cell in the state of rest shows a large number of grayish granules which are intimately connected with the storage of energy, and when the granules are abundant the cell is like a fully charged battery, ready to discharge under the influence of a right sort of stimulant. When the cell is fatigued as after a prolonged energetic work, these granules are found to be very small and few in number. When large doses of strychnine and other medicinal agents are given to increase the energy in the cell and fail to accomplish this result, it is evident that the cells are exhausted beyond the point of immediate repair and the drug has practically injured them in the attempt to produce additional discharge of energy which did not exist in the cells. The recovery from cell exhaustion must come through the assimilation of food and rest and the elimination of retained excretions or nerve benumbing toxines generated within the tissues or absorbed from the alimentary canal. Of all the substances known cold water is the most powerful in promoting the normal energy storing-processes of the cell. This is apparent from the sensation of well being and buoyancy, and a readiness for exertion which follows the use of water. The tonic effects are due to a large degree to the stimulating influence of water acting through the skin upon the sympathetic nerve centers.

The awakening of the sympathetic nerve to new activity is the thing specially needed in the great majority of chronic invalids. The functions of the brain and spinal cord are very largely influenced by the sympathetic nerve. The sensation of strength following the re-action from water is due largely to the increased activity of the cerebral circulation brought about through the intermidiary of the sympathetic. In this way the action of water on the surface and internally assists in controlling, augmenting, retaining, and re-organizing the various processes of organic life. Cold or hot water is therefore a physiological tonic and has the advantage over other medicinal tonics in that it awakens nerve activity without the imposition of any extra burdens upon any vital organ, and without diminishing the activity of any function. A cold bath accomplishes its chronic results by increasing vital resistance to the causes of disease. The impression made upon the skin with its net-work sensory motor, sympathetic, vasso-motor, and thermic arouses every nerve center of the gangilon. The blood flows with renewed vigor and nerve energy is assimilated by the weakened cells. This in part explains the glow, exhileration, invigoration and buoyancy which follows the application of cold water to the skin and therefore should be used with greater frequency as a more sensible and rational measure to restore cell fatigue than the common drugs used.

INTERNATIONAL STATEMENT CONCERNING ALCOHOL.

It will be new to many of our readers that there are five medical temperance associations in the world, with a membership of nearly 5,000 medical practitioners. These associations include among its members many of the leading physicians in Europe and this country. The special purpose of these societies is to study alcohol and its effects. Recently, committees of these associations have formulated a manifesto or statement of general facts concerning the action of alcohol. This manifesto is being circulated among medical men for their signatures with the purpose of securing some general concensus of opinion. It begins with the statement that medical men as guardians of the public health should speak plainly, and teach clearly, the dangers resulting from the consumption of alcohol. The first part of the manifesto declares clearly that alcohol is injurious, even in small doses, upon the intellectual functions and the power of self-control, and impairs the sense of individual responsibility. It asserts that the habitual consumption of alcoholic beverages precipitates the retrograde changes incidental to advancing years, besides increasing the liability to certain intercurrent maladies. It also declares that all persons who abstain from the use of alcohol possess greater physical stamina, and also that they escape a series of diseases especially due to the noxious action of alcohol. It is now considered settled that alcohol disturbes the equilibrium of the nervous system, lessening its vigor in all cases of persons who indulge. This damage extends to their offspring with the inevitable result of bringing about deterioation of the race mentally, morally, and physically. Anyone who observes the dis-

ease, death, vice, crime, poverty and suffering which come from the use and abuse of alcoholic beverages will realize the great responsibilities which rest upon medical men in their personal attitude and teaching concerning this subject to the public. This movement is a very significant indication of a change in medical opinion in the last few years. The fact is beginning to be realized that medical men should be teachers and preachers of temperance rather than the poor victims themselves. No one can be more familar with the evils which follow the use of alcohol than the physician, and no one should be more prominent in pointing them out and warning the community.

THE PLAGUE.

The increase of the plague at San Francisco recalls very vividly the terrible epidemics which have spread over the world in centuries past. Since 1300 we have been able to record several great invasions of pestilential diseases which have ravaged the civilized world in a startling way. The first great epidemic was called the black pestilence and resembled cholera, differing from it only in the dark livid color of the spots and boils that broke out on the patient's body. This passed over the then known world and probably not less than 1,500,000 persons died from it. A few years later another similar mysterious disease crossed the world equally fatal and ended in 15 years. From that time to the last century many great epidemics have come and gone, destroying thousands of persons. The progress of modern science has checked these wide-spread epidemics, but still they break out here and there, and are limited in their growth and fatality. The plague at San Francisco is in a fair way to be effectually stamped out, although it has raged in Europe for several years. It is now recognized that a bacterial causation is prominent in these epidemic diseases, and researches along this line will enable us to effectually stop the disorder at the fountain head. Cholera and yellow fever are both diseases of the past and have come under the control of sanitary science. It is doubtful if they ever will exert the same influence or have the same fatality as before. Quarantines and destruction of the germ causes are becoming more and more perfect every year, and the medical public should be very active to encourage researches along these lines.

THE VAMPIRE BAT.

For many years the statement has been constantly challenged as untrue that a species of bat could suck the blood from a man or animal without their knowledge. Lately this statement has been confirmed by an English officer travelling through middle Africa. He mentions his personal experience as waking up one morning with a feeling of intense weakness, and finding a little blood near where his feet rested during the night, he made some inquiries.

The next night a servant was placed in a condition to watch, and found to his surprise, that during the night a dark brown bat with wings 25 to 30 inches in diameter lighting down near his feet and in a most delicate way, tapping a small blood vessel in the great toe and inserting its bill and drinking the blood. Its wings were in constant motion, making a cool breeze over the parts so that the sleeper was not awakened, and no pain followed the wound. The servant made an effort to capture this bat and the noise awakened the person who was not aware that phlebotomy had been practiced on him. It is related in this region that every part of the body is covered either with some thick clothing or some odorous oil which prevents this bat from preying on human beings. Cattle seem to be equally oblivious of this vampire who watch until they are sound asleep and then select some place, usually the ear, from which to gorge themselves with blood. This story has the usual startling conditions and is told with great frankness and sincerity, one of the conclusions of which is that in this region the sudden profound depression and debility experienced after a sound sleep in the open air is traceable to the loss of blood from this remarkable vampire bat, whose operations are entirely unknown to the victim.

A CONFERENCE REGARDING THE BUBONIC PLAGUE.

A conference was held in Washington, D. C., January 19th, 1903, upon the call of twenty State Boards of Health, to consider the Plague situation in the United States, especially that of San Francisco, Cal.

The State Boards of Health were represented as follows: Dr. C. D. Smith, of Maine; Dr. H. D. Holton, of Vermont; Dr. C. A. Lindsay, of Connecticut; Dr. G. T. Swerts, of Rhode Island; Dr. Dan'l Lewis, of New York; Dr. Henry Mitchell, of New Jersey; Dr. Benj. Lee, of Pennsylvania; Drs. A. Lowber and C. W. Cooper, of Delaware; Dr. J. S. Fulton, of Maryland; Dr. W. C. Woodard, of District of Columbia; Dr. Paulus Irving, of Virginia; Dr. R. H. Lewis, of North Carolina; Dr. J. A. Albright, of Tennessee; Dr. J. N. Hurty, of Indiana; Dr. H. M. Bracken. of Minnesota; Dr. M. B. Thompson, of Indian Territory; Dr. H. R.

Bull, of Colorado; Dr. J. L. Kenny, of Iowa; Dr. Mathew Gardener, of California.

Report was made by Surgeon Glennan which was read by General Wyman, upon the inspection of the towns outside of San Francisco, these were found apparently free of plague. Dr. Wyman made report of his personal visit to San Francisco and Chinatown in December last, receiving at that time assurance of Mayor Schmitz, of San Francisco, that all opposition to the view that plague existed in San Francisco was at an end. Report was made that 50% of dead rats and 1.1% of living rats were affected by plague. Reference was made as to the possibility of plague having been carried from San Francisco to Mazatlan, Mexico.

The proceedings and discussions of the conference established the conclusion without a doubt of the existence of plagne in San Francisco and of its existence for nearly three years without the proper care and restriction.

Various resolutions were passed and the assurance was received separately from the Governor of California and Mayor of San Francisco that the State Board of Health of California and of San Francisco would work in conjunction and that an appropriation adequate to the work would be made by the Legislature to stamp out the disease.

It is most unfortunate that the authorities in power, of both California and San Francisco, refused to accept the situation at the very first appearance of the disease in the city, when radical measures would have cleansed the city; especially Chinatown, of the infectious disease. Among the resolutions which were passed we quote the following:

"The presence of plague in any country where proper restritions are not taken to prevent its spread, is an injury to the best interests of that community."

"The present danger to California and to the United States lies primarily in the persistence during nearly three years of a definite nidus of plague infection in part of San Francisco known as Chinatown; but the gravity of this circumstance is greatly increased by the gross negleet of official duty by the State Board of Health of California and the obstructive influence of the recent Governor of California; by the failure of the city government of San Francisco to support its City Board of Health, and by the obstacles opposed to the operations of the United States Public Health Service."

"The gratitude of the city of San Francisco is due to Drs. John M. Williamson, Vincent R. Buckley, W. B. Levitt, Randolph W. Baum, Louis Bazet and W. R. McCarthy of the City Board of Health of San Francisco. These men have the unreserved confidence of the executive health officers of the country.

It is to be hoped that the Boards of Health of California and that of the city of San Francisco will work in conjunction and in kindly affiliation with the Public Health and Marine Hospital authorities so that the city and especially Chinatown will thus be freed entirely from the disease and all dangers of an infection; thus remove a danger of a most calamitous nature which threatens seriously the welfare of the United States.

It is a great gratification to the remainder of the United States in general that this matter promises to receive the attention of the proper authorities of California as it should and in a manner that promises to remove this danger from our shores. It is certainly a comfort to know that an effort will be put forth to prevent a repetition of the serious result that occurred at Ann Arbor, Michigan.

REVIVAL OF THE INDEX MEDICUS.

It is learned with much gratification that the trustees of the Carnegie Institution, which is being established at Washington, D. C., have decided to revive the publication of this very important periodical.

This will be very gratifying to all who have occasion to look up the literature on any medical subject, for any purpose whatever.

The profession will be profoundly grateful to the donor of the fund which made it possible for the revival of this journal. The first number, the New York Med. Journal states, is to be issued in January, and that Dr. Robert Fletcher is to be editor in chief. This will be fitting, since Dr. Fletcher was associated with Dr. John S. Billings during the publication of the original series of the periodical.

One important object which will be desired, is that the interval between the date of discontinuance of the Journal, to the time of its revival may by some means be covered, that the publication may present a continuous series without a break.

The subscription price has been placed at a nominal rate of five dollars per annum. The fund makes it possible that it can be published at all and the subscription is no doubt made, so that those who can make use of the publication can secure it but at the same time prevent imposition by persons who do not appreciate the value of the Journal or who have no practical use for it, were it furnished free.

Book Notices.

International Clinics. A Quarterly of Illustrated Clinical Lectures, and especially prepared Articles of Medicine, Neurology, Surgery, Therapeutics, Obstetrics, Pediatrics, Pathology, Dermatology, Diseases of the Eye, Ear, Nose and Throat, and other Topics of Interest to Students and Practitioners, by leading Members of the Medical Profession throughout the world. Edited by Henry W. Cattell, A. M., M. D., Philadelphia, U. S. A., with the Collaboration of John B. Murphy, M. D., Chicago; Alexander D. Blackader, M. D., Montreal; H. C. Wood, M. D., Philadelphia; T. M. Rotch, M. D., Boston; E. Landolt, M. D., Paris; Thomas G. Morton, M. D., Philadelphia; James J. Walsh, M. D., New York; J. W. Ballantyne, M. D., Edinburgh, and John Harold, M. D., London, with Regular Correspondents in Montreal, London, Paris, Leipsic and Vienna. J. B. Lippincott Company, Philadelphia and London. Cloth, $2.00. Volume 4, Series 12.

These volumes have from time to time received thorough and very favorable notices as they came to us. They ought to be read and in the library of every physician throughout the country. The writer has always regarded them as a part of the best of the current literature.

A Manual of Toxicology, by Albert H. Brundage, A. M., M. D., Phar.D., Professor of Toxicology in the Brooklyn College of Pharmacy; Vice-President and Examiner in Toxicology, New York State Board of Pharmacy; Toxicologist to the Bushwick Central Hospital, etc. Adopted as a text book by various colleges. It is only pocket size. A large book in small compass on Poisons and Poisoning. For Physicians, Pharmacists, Lawyers, Experts, Coroners, Ambulance Surgeons, Students, and others. It gives Definitions, Descriptions, Classifications and Examples. It is the only book which gives Full and Complete Details in the Treatment of Each Kind of Poisoning. Price, $1.50 net. (postage prepaid). The Henry Harrison Co., Broadway and Gates Ave. (Hart Building), Brooklyn-New York, N. Y.

This book tells what may be employed, in or with what, how much, how often, how long, why employed, what not to employ, how much of the poison kills, how much has been recovered from, and how death occurs. It gives among other things the following: The Post-Mortem Appearances in fatal poisoning. Identification Tests for Poisons. Tells what poisons to suspect from a single prominent symptom. Gives an Outline of Procedure in searching for poisons for courts of law; the Signs of Death; Tests by which to deterine death has occurred; the modes of death; the interpretation and treatment of unconsciousness, or coma; the history, symptoms, and treatment of chronic poisoning and drug habits by such poisons as: Alcohol, arsenic, chloral cocaine, ether, lead, mercury, opium, morphine, etc. Gives a dose table (of about 700 preparations), the result of the author's comparing and averaging the doses recommended by the leading American and European authorities. It contains laws relating to poisons; also sets of questions for self-examination, etc. The book is arranged for careful study, emergency reference, or quick review.

The Practical Medicine Series of Year Books, comprising ten volumes on the year's progress in medicine and surgery under the general editorial charge of G. P. Head, M. D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Vol. III., Eye, Ear, Nose and Throat—Edited by C. A. Wood, M. D., A. H. Andrews, M. D., T. M. Hardie, A. M., M. D. The Year Book Publishers, 40 Dearborn St., Chicago. Price of series $7.50. Price Vol. III, $1.50.

Although derived from special literature there is much in this volume that will be of interest to the general practitioner and will aid him in his daily work. The hygiene of the eye, conditions affecting the conjunctiva, injuries to the eye and hints on the therepeutics of this specialty are points on which we daily want the information that is here given in a concise form.

Each month the writer can easily notice the improvements in these monthly volumes as they come to us. They are always full of medical information that is up to date.

Transactions of the American Laryngological Association, 1902.

This volume is the transactions of the twenty-fourth annual meeting of this national association of laryngologists. It makes a large book of about three hundred pages. It is profusely illustrated, and contains many articles written by men whose worth is well known throughout the country for the special work done along this line. Dr. J. A. Farlow, of Boston, is President, and Dr. J. E. Newcomb, of New York City is Secretary.

Lea's Series of Medical Epitomes.—An Epitome of Physiology for Students and Practitioners of Medicine. By Theodore C. Guenther, M. D., of the Norwegian Hospital, Brooklyn, and Augustus E. Guenther, B. S., formerly Assistant in Physiology in the University of Michigan, Ann Arbor. In one 12mo. volume of 250 pages with 57 engravings. Cloth, $1.00 net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1903.

This is a compact little treatise, free from discursive matter, but giving the established facts of Physiology as developed at the present day. It is intended for and especially adapted to the needs of medical and dental students, but it will also prove of value to the practitioner who may wish to post himself on the most recent findings on the subject.

No one will deny the value of epitomization, if well done, and while this compendious little work is by no means intended to take the place of the large volumes on Physiology, it certainly provides a handy and legitimate help to a knowledge of essentials to which a thorough understanding of details may be easily added.

The Series of Medical Epitomes should not be confounded with the ordinary Question Compend, made up in question and answer form, for in the Epitomes the matter is given connectedly, thus facilitating reading and study, and the questions for convenience in quizzing are appended to each chapter. Helpful illustrations are used where necessary throughout the book.

W. B. Saunders & Company desire to announce to the profession that they have established a branch of their business in New York. For this purpose they have secured a suite of rooms in the Fuller Building, centrally located and easily accessible from all parts of the city. Dr. Reed B. Granger, for many years managing editor of the New York Medical Journal, together with a representative who is thoroughly familiar with the methods of the Philadelphia house, will be connected with this new branch; and Mr. W. B. Saunders personally will divide his time between New York and Philadeldhia.

It is the intention to apply to this New York office the same systematic business methods that have proved so successful in the conduct of the Philadelphia and London houses; and the firm confidently believes that through these three centers, aided by the many other agencies located throughout the country, and by an efficient corps of canvasssers representing years of valuable experience, the demand for their publications will be greatly increased.

The Fuller Building, erected on the triangular plot bounded by Broadway, Fifth Avenue, 22d and 23rd Streets, is one of the oddest structures in the world, and because of its peculiar shape is known as the "Flat-iron Building." From the offices, purposely located on 17th floor, can be obtained an uuobstructed panoramic view of the city.

Physicians visiting New York are cordially invited to these conveniently appointed offices their headquarters, where they can receive and answer their correspondence, obtain an interesting panoramic view of the city from a most favorable point, and where they will always be courteously welcomed.

The American Year-Book of Medicine and Surgery for 1903. A Yearly Digest of Scientific Progress and Authoritative Opinions in all branches of Medicine and Surgery, drawn from journals, monographs, and text-books of the leading American and foreign authors and investigators. Arranged, with critical editorial comments, by eminent American specialists, under the editorial charge of George M. Gould, A. M., M. D. In two volumes—Volume I, including General Medicine, Octavo, 700 pages, fully illustrated; Volume II, General Surgery, Octavo, 670 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Co., 1902. Per volume: Cloth, $3.00 net; Half Morocco, $3.75 net.

We do not know of any similar publication, either American or foreign, that can compete in any way with this excellent Year-Book, published by W. B. Sounders & Company. It is not an indiscriminate collection of extracts clipped from any and every journal; the matter is carefully selected, edited, and in numerous cases commeted upon by the eminent authorities whom Dr. Gould has enlisted as his assistants. Every new theory and scientific discovery worthy of the consideration of the profession has found a place in this unusually complete Year-Book; and the names of the several editors are sufficient guarantee of a proper discrimination. The work to us in the same dress as last year—in two volumes. Volume I contains General Medicine, and Volume II General Surgery, the volumes being sold separately if desired. As usual the illustrative feature is well taken care of, there being eleven full-page inserts, besides many excellent text-cuts. We strongly recommend Saunder's American Year-Book as the best work of its kind on the market.

A Text-Book of Clinical Medicine, Principles of Diagnosis, by Clarence Bartlett, M. D., Professor of Clinical Medicine, and Associate Professor of Medicine in the Hahnemann Medical College of Philadelphia. Senior Neurologist to the Hahnemann Hospital, etc. With 245 illustrations including six colored plates. Published by Boericke and Tafel, Philadelphia. Price, cloth, $7.00, half Morocco, $8.00.

Of the two volumes in which it is intended this work shall be published, the one under consideration refers to diagnosis only, the second is intended to deal mainly with the therapy and its clinical application, this volume is in the truest sense of the word a clinical diagnosis if such a term may be applied to a book and it is one of the most complete treatises we have had the pleasure of seeing for some time. If the second volume shall be as complete and satisfactory in the direction of clinical medicine, little more will be needed in the way of a reliable work.

The arrangement of the book is most excellent, while its typographical and mechanical make up are of the best.

The author of this most excellent book is a homeopathic physician. Books written by members of this school, on this subject, are very few, and it is with a feeling of very great pleasure that we review such an interesting, valuable book in which a distinguished member of this branch of our profession has given his experience and observation.

The Practical Medicine Series of Year Books.

Comprising ten volumes on the year's progress in medicine and surgery. Issued monthly under the general editorial charge of Gustavus P. Head, M. D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School.

Volume II., November, 1902, considers General Surgery. It is edited by John B. Murphy, M. D., professor of surgery, Northwestern University Medical School.

This volume is especially well written and up to date. There are no better books published for the price than this series.

Published by The Year Book Publishers, Chicago, Ill. Price, $2.00.

Transactions of the American Surgical Association, Vol. XX. 1902.

This volume comes out in its usual attractive form, in a substantial cloth binding. It contains about seven hundred pages with a great many illustrations. Dr. M. H. Richardson is the President of the Association, and Dr. D. P. Allen is Secretary.

There is hardly any doubt that this association, dealing as it does with special lines is doing a larger amount of scientific work than any similar organization in the world.

Literary Notices.

The February Lippincott's Magazine.—The prominent feature in Lippincott's Magazine is always a complete novel. That contained in the February number is by Alice Duer Miller, entitled "A Man of His Word." Mrs. Miller, by the way, belongs to a popular New York story-writing family. Both her mother and sister are well-liked contributors to the leading magazines. The motive in "A Man of His Word" is the moral obligation of a member of the Four Hundred to marry a young schoolteachor because her mother had saved his life at the expense of her own. Before her death she whispers to her debtor, "Marry my daughter." On this foundation the author has built a tale of compelling interest and infinite diversion.

The Venezuelan and Panama Canal situations are editorially discussed in the Review of Reviews for February. In addition to his comments on these very prominent topics of the hour, the editor gives his usual valuable survey of the months important happenings, at home and abroad. Among the contributed articles there are two character sketches of exceptional interest: "Abram L. Hewitt, a Great Citizen," is the subject of a discriminating tribute from the pen of Edward M. Shepard, the New York lawyer and politician, who knew Mr. Hewitt intimately, while Mr. George Perry Morris reviews the too brief career of Mrs. Alice Freeman Palmer, the former president of Wellesley College and a leader in many intellectual movements. The art treasures of the late Henry G. Marquand, many of which were sold recently in New York at almost fabulous prices, are described in an illustrated article by Ernest Knaufft. The latest developments in wireless telegraphy are recounted by Prof. A. Frederick Collins, while Mr. Thos. C. Martin describes the Pacific cable lines—the all-American and the all-British. Prof. Frank A. Wilder gives much interesting information about the coal deposits of our great Northwest. The fullest statement yet published of the impending land reforms in Ireland is furnished by Mr. Walter Wellman, who has just returned from that country. The recent Taff Vale Railway decision in England on the rights and liabilities of labor unions in connection with strikes is reviewed by Mr. A.

Maurice Low. "Some Taxation Problems and Reforms" is the subject of a comprehensive article by Secretary Commons of the National Civic Federation. "Some Cartoon Comments," "Leading Articles of the month," and the other regular departments, round out the number.

Abstracts of the Leading Articles of the Month.

How Eye Strain Causes Headache.*

In this connection we may understand "eye strain" as the pain which is experienced by some persons when they attempt reading, sewing, or other near work, this pain being referred to the eye itself, to the forehead, or some part of the head or even to the shoulders. The theory that this pain or headache is essentially what we call "nervous" or "cerebral" has so little to justify it, either physiologically or pathologically that it may be dismissed without discussion.

A more natural explanation is that the pain is due directly to some muscular contraction. The object of this paper is, to indicate what muscles these are and how they are thus brought into a condition of painful contraction. For this purpose let us consider, first, the pain of the eye strain which is referred to the globe of the eye itself. Until very recently there was no way of explaining this which was quite satisfactory, this being for the reason that the mechanism of accommodation was not entirely understood.

According to the theory of Helmholz, which is generally taught the ligament of Zinn is tense when the eye is at rest, and it relaxes more and more in proportion to the degree of accommodation. Evidently this theory does not satisfactorily explain the facts of what we call "eye strain," and this has long been a stumbling block, because we are still conscious of much increased effort when looking at a near point.

A better explanation has been given more recently and for this our thanks are due especially to Prof. Tscherning. The gist of it is that the act of accommodation is not rather a passive one, as Helmholz supposed, but in reality when we look at a near point we contract the ciliary muscle and that tightening draws the edges of the lens, bending the central portion of the anterior surface further forward, thus making it more convex. It would lead to a long digression to attempt to give the reasons which lead to this conclusion. Suffice to say that facts in favor of this view amount practically to a demonstration. Now that we know that to look at a near point means entirely an active muscular effort, it is no longer difficult to explain the pain in the eyes which constitute the first features of ocular headaches.

Second. A certain amount of accommodation always means a certain amount of convergence of the visual axes to the point at which the eye is focused. This means tension of the internal recti and also to a certain extent the superior rectus and the inferior rectus.

Third. The accessory muscles of the forehead and if the head are brought into action when any special effort is necessary to maintain the act of accommodation. It is the tension of these accessory muscles largely which gives rise to the pain which is preeminently a headache. These accessory muscles are so numerous as to warrant more exact consideration. We easily recognize the corrugator supercilli as an accessory muscle in the act of accommodation, when a person looks intently at a near object, there is an instinctive desire to "scowl," as we say by contracting these muscles.

Another important muscle in this connection is the occipito-frontalis. In many individuals the horizontal wrinkles caused by its contraction can be seen in the center and even at the side of the forehead when an effort at accommodation is long continued. But this contraction means also contraction of the posterior portion of the muscle and that in turn is frequently manifested by pain of which the patient complains at the back of the head. As we know that in certain individuals the connection between the two portions of this muscle glides over the calvarium very easily, it is but fair to suppose that contraction of the anterior fibers produces also a very decided contraction of the posterior fibers. Indeed it is only in this way that we can explain the fact that in certain persons the effort to read is accompanied by pain at the back of the head. The patient usually speaks of the base of the brain although we know of course that the brain is not sensitive and the seat of the sensation must be in the muscle external to the skull. In view of the foregoing, we are apparently warranted in the following conclusions:

First. The pain and headaches which are experienced in the so-called eye strain can be accounted for most rationally as due to excessive muscular contraction.

Second. The pain in the eye itself, we are now able to explain, by our more recent knowledge of the process of accom-

* Dr. Lucien Howe, of Buffalo, N. Y.

modation, and the tension on the internal recti during convergence.

Third. The pain over the eye in the forehead which is caused by contraction of the fibers of the corrugator supercilli by the anterior portion of the occipito-frontalis and by other fibers extending over the forehead which are accessory muscles of accommodation.

Fourth. The pain at the back of the head by contraction of the fibers of the posterior portion of the occipito-frontalis and the upper fibers of the trepezius when also acting indirectly as an accessory muscle of accommodation.

"Examination of Milk by General Practitioner."*

A scheme was outlined for a rapid, simple and accurate method of examining either human or cow's milk. The importance of testing the acidity of the milk was dwelt upon. Milk with an acidity over two-tenths of one per cent. is not fit for drinking purposes. The determination can be made either by a simplified trituration method or by the use of Earrington's alkaline test tablets. This is graduated from 1020 to 1050 and requires a little over half an ounce for a reading. Lactometers are standardized at 60 deg. F. and the correct reading can easily be obtained when the temperature of the milk is known. The specific gravity of mother's milk averages 1030 and it is lowered by an increase in fat and raised by a high percentage of proteid. If the specific gravity of cow's milk is less than the normal (1029 at 60 deg. F.) one of two things may be assumed. Either the milk contains an unusual amount of cream or the milk has been watered. If on the other hand, the specific gravity is higher than normal and the percentage of fat is low, it is fair to assume that the milk has been skimmed.

The percentage of fat is obtained in many ways but the writer prefers the Babcock method. A small hand centrifugal machine was made for him by O. H. Burrell & Co., of Little Falls, N. Y., which takes up very little room and uses the regulation size test bottles. This machine can be used for urinary and bacteriological work.

The percentage of sugar varies very little and its estimation is not required in an ordinary routine examination. The quantitative Fehling test used for uranlysis can be used.

The total solids of the milk can be determined from the corrrcted specific gravity and the percentage of fat. The Babcock formula consists of dividing the specific gravity of the milk by four and adding to this 1-5 the per cent. of fat to this product, the amount of the total solids is obtained.

A sliding milk scale has been recommended by Richmond, based on this formula. By it the corrected lactometer reading and total solids can be ascertained at a glance without applying any mathematical formulæ.

The amount of proteids can be estimated approximately by subtracting the percentages of fat, sugar and salts from the total solids.

The Hehner and Phloroguein tests are recommended for the detection of formalin in milk.

* Abstract of Article read before the Medical Society of the State of New York, by Henry L. K. Shaw, M. D., of Albany, N. Y.

Successful Splenectomy During Typhoid Fever.

Ashby (American Gynecology) reports a case of splenectomy for wandering spleen complicated with typhoid fever. The patient, a single woman, aged twenty-two, had suffered from several attacks of malarial fever. The spleen had undergone hypertrophy and dragged so heavily on its attachments that it became displaced into the pelvis and impacted in that cavity behind the uterus. The patient contracted typhoid fever, and pelvic pains set in. Her doctor detected a large mass in the pelvis extending well above the brim, and very tender. As there was high temperature he came to the conclusion that the mass was an inflammatory tumor. When he examined her there were no typical symptoms of typhoid fever, and no cases of that disease in the neighborhood of the patient's home. He at once sent her into a hospital. Dr. Ashby found the physical signs of an inflammatory mass in the pelvis. There was pain on pressure, a doughy sensation to the touch, and the skin over the region of the tumor was so red and shiny that it seemed as if a suppurating mass was present and ready to burst through the skin.

Believing that there was a large collection of pus to be let out, he prepared for an abdominal operation. On the next day, when the patient was under the anesthetic, the pelvic mass could be distinguished on palpation with greater precision; in fact, it felt like an ovarian cyst or soft uterine fibroid. As soon as an exploratory incision was made an enlarged spleen was discovered. Its size and the length and weakness of its ligaments precluded any thought of attempting to fix it in its normal position. The only safe course was to remove the organ, and this was affected without the least difficulty, as its pedicle at the

point of attachment under the diaphragm was as thin as a little finger. The pedicle was ligatured in section, and the stump well covered with peritoneum.

There was a little shock after the operation, but remarkable and alarming symptoms developed, and the eriatic course of the temperature could not be accounted for until the typical typhoid reaction was obtained about the sixth day. Thenceforward the typhoid condition was regarded as the primary disease, and treated accordingly; the fever ran a regular course, and convalescence was uneventful. The patient's health after her recovery was better than prior to the attack of typhoid fever. It is noteworthy that there were no sequelæ traceable to the operation itself. The slightness of constitutional disturbance when an abdominal tumor free from adhesions or inflammatory changes is removed with aseptic precautions is well illustrated by the course of this case, where so grave a complication as typhoid fever existed.

The Diuretic Action of Rectal Irrigation, The Specific Action of Normal Saline Solution in the Products of Diuresis.

Kemp (Medical News, January 3rd, 1903) states that saline solution has a specific action on the kidney cells in producing diuresis, and this occurs whether the solution is administered by infusion, by hypodermoclysis, or by enteroclysis. It occurs even when the enema is so small that the arterial tension is not affected, and it will even take place after section of the renal nerves. The action of the enemata, if properly given, is two-fold: (*a*) the quantity of the urine is increased, and (*b*) the renal congestion is diminished. Absorption from the colon will take place in twenty minutes. The enemata may be cold, tepid, or hot. Cold irrigations are only temporarily stimulant, then depressant, and if continued will, by producing an ultimate state of shock, decrease the quantity of urine. They are not to be commended. Tepid irrigations (99 deg. to 100 deg. F.) begin to be absorbed at the end of twenty minutes, and both increase the quantity of urine and reduce congestion. The hot irrigations (110 deg. to 120 deg. F.) are the kind that is specially recommended. They produce two stages of increased urine elimination. The first occurs at the time of increased circulation, that is, at the end of ten minutes; the second is due to the absorption of the fluid and takes place at the end of twenty minutes. Clinical experience shows that, even with high arterial tension, though there may be an evanescent increase due to the temperature of the fluid, yet the profuse diuresis, diaphoresis and bowel action are followed by a rapid fall of pulse tension and a marked improvement in the condition of the patient. The following method of giving the enemata is the best: A double flow tube should be used, the patient being placed in bed and mattress protected by rubber sheeting, the bed-pan being discarded, and the out-flow tube carried to a pail. Use from three to twelve gallons at a sitting, from a pint to a quart being kept constantly in the bowels. If necessary the irrigation should be repeated every three hours, especially in severe cases, such as threatened suppression of urine. Patients will absorb by this method of irrigation as much, on an average, as one quart out of an irrigation of thirteen quarts. The author believes that "scientific irrigation" is of the greatest value as a diluent of the blood and as a prompt producer of diuresis, diaphoresis and bowel action. It is especially indicated in conditions like eclampsia.

Treatment of Pneumonia.

Redmond (Scottish Medical and Surgical Journal) believes that in the treatment of this disease no routine drug treatment is of any practical value. Antipyretic drugs and all depressing lines of treatment are especially to be avoided. This includes nauseating drugs, such as tartar emetic and even digitalis; the latter depresses indirectly, because it causes impairment of appetite and nausea (if not actual vomiting), and so interferes with nutrition, and this again leads to heart failure.

A supporting and, in the widest sense, stimulating line of treatment will generally be attended by the best results. Alcohol should not, however, be prescribed in a routine way; when it is clearly required by the state of the pulse (especially), the temperature, and the tongue, it is invaluable, and the quantity given should be in proportion to the intensity of the conditions calling for its use. Patients with unimpaired constitutions, and especially the young, generally need none, and are better without it.

For relief of the pain in the side, nothing is so good as leeching.

In presence of high temperature, refrigeration to the surface by the ice-bag locally or by cold water generally is desirable; the latter is specially indicated, and should be applied vigorously if delirium is a complication.

In the case of vigorous subjects, where cyanosis is present and there is obvious engorgement of the right heart, general bloodletting may with propriety be practiced.

The Bladder after Hysterectomy.

Kolisher (American Journal of Obstet., Dec., 1902) says that neither bimanual examination or cystoscopic examination, performed in different stages of dilatation of the bladder reveals abnormal conditions. Abdominal hysteropexy, ventrosuspension and ventrofixation in some cases, seems to have a decided influence on the circulation and function of the bladder. The systoscopic examination in such cases revealed an extreme paleness of the mucosa; in some instances the epithelium seemed to be swollen and soaked. If we accept the theory that the desire for urinating is brought on by the stretching of the muscular coat of the bladder, it is easy to understand the hanging of the uterus high up will lead to more frequent calls to urinate. In the case of a virgin operated upon by abdominal hysteropexy, where the uterus was hung rather high, a few days following the operation, the urine became cloudy and micturition so frequent that the night's rest was disturbed. This condition has continued with some diminution for two years. Two cases of gonococcic infection of the bladder were much worse following the same operation and have resisted all therapeutic efforts to stop the trouble. If the bladder be properly stripped from the uterus the bladder will remain intact. The dislocation of the bladder itself does not interfere with its function, if no special complications arise. Quite interesting and peculiar conditions rise if vaginal fixation is performed on account of prolapse and cystocele. In Kolisher's cases, all of which had had chronic retention within the cys tocele, the bladder is spontaneously and completely emptied at each micturition since the operation. If the uterus be stitched too low down to the vagina, it pulls the vaginal wall and consequently the posterior wall of the urethra in such a direction as to distend the urethra posteriorly. This portion of the urethra is now the mainstay of the continence, and, if weakened, the continence will be impaired. Prompt and definite relief was furninished by the introduction of a pessary.

X Light in Therapeutics.

Skinner (Medical Record, December 27, 1902). The x light has been found useful in the treatment of acne, psoriasis, eczema, rheumatism, and some forms of neuralgia. Experiments with these diseases have been limited, however, and too sweeping conclusions must not be drawn. In the cases of neuritis, anthrax, lupus, and cancer, some very brilliant results have been obtained. In lupus the curative effect of the ray is greatly increased by combining with it the static brush discharge, the patient being isolated negatively. There are four theories as to how the x-ray produces its curative effects in cancer, that are worthy of note: (*a*) through stimulation of the reparative function of the tissues; (*b*) the ray exercises a selective destructive influence on aberrant tissues of low vitality; (*c*) the ray exercises a destructive influence on the cancer germ or increases the resistance of the tissues to the germs; (*d*) malignant disease is a reversion of tissue to a primitive type, and the ray, by influencing this aberrent tendency, overcomes the condition. None of these theories is wholly satisfactory. For the purpose of x-ray therapy, it is necessary to consider cancer as of two kinds, superficial and deep. The effects on the former are fairly well understood, and the reported cases are numerous. With the latter, little has been done. Thirty-three cases of the author's give the following results: Disappearance of the malignant growth in 3 cases; reduction in size in 13 cases; temporary reduction in size 1 case; permanent arrest of growth in 2 cases; no effect in the size of the tumor of 14 cases. So far as the pain was concerned relief failed to be obtained in only 4 cases. The following conclusions are drawn from the cases: (*a*) The pain in deep seated cancer can be relieved or abolished in a large number of cases; (*b*) the progress of many cases is markedly retarded; (*c*) some cases are cured; (*d*) a small number show no change under treatment; (*e*) symptoms of toxæmia not infrequently occur during treatment; this self infection is capable of producing death. Small cancers may be treated with the x-ray exclusively. With large cancers it is better to call in the aid of surgery, and treat with the x-ray afterwards. In small superficial cancers, it makes little difference whether the coil or the static machine is used, but in the treatment of internal cancers the coil is at a distinct disadvantage.

The Prophylactic Treatment of Enteric Fever by Inoculation.

Stevenson (Dublin Journal of Medical Science, December) says that if, with safety and facility, an individual can be placed in the condition of one who has convalesced from an attack of typhoid fever with his powers of resisting it greatly increased, the object of introducing a prophylactic treatment of typhoid will have been achieved. This immunity is brought about during the course of the typhoid bacilli, causing the production of a condition antagonistic to the germs of that disease. It is easy to obtain for the purpose of this treatment typhoid toxines, seeing that a broth culture must abound in them. They are sterilized

by heating to 60 deg. C. and a certain quantity of carbolic acid is then added. The culture is standardized; the dose is usually one cubic centimetre for the first injection, and from one and a half to two cubic centimetres for the second. The method of administration is by a sterile hypodermic needle, the fluid being injected into any part of the body, preferably where the tissues are lax, as in front of the axilla or in the skin of the abdomen. At first, in this treatment, one large dose of typhoid vaccine was used. It was then found that the bactericidal power was decreased for a period of two or three weeks. This was followed by a positive phase of increased bactericidal power. The undesirable negative phase is now obviated by giving an initial small dose when there is a very short or no "negative phase." Then, after ten days, a larger dose is administered and a still greater bactericidal power will be gained.

The symptoms produced by this treatment are trivial. Of seventy cases of inoculation carried out by the author on board ship only one patient took to bed for one day and a half. His evening temperature was 101 deg. F., and was 99 deg. F. the following morning. In another case, it caused vomiting about three hours after inoculation. The symptoms were mostly local. The immunity brought about by typhoid vaccine seems to be similar to, but more certain than, that produced by long residence in a locality where enteric fever is endemic. Inoculation does not prevent the disease, but statistics show that the percentage of cases among those who have been so treated is very considerably less than among those who have not, though all were equally exposed.

In conclusion, it is reasonable to expect, and ascertain facts so far as they go prove, that this system of treatment is a satisfactory one for the prophylaxis of enteric fever. But discretion is necessary in practising it in the presence of an epidemic where an overdose of vaccine would for a short time lower the power of resisting this disease.

Anesthesia.

Hewitt (The London Lancet, Jan. 17th, 1903) deals with bad subjects for anesthesia where the cause is due to some embarrassment of respiration, such as post-nasal growths, enlarged tonsils, fixity of the lower jaw, angina Ludovici, etc. In these cases all asphyxiating anesthetics are to be avoided. Pure nitrous oxid may be a poison in angina Ludovici, while the abuse of ether may also have a bad effect. They are best treated by a slow administration of a mixture of ether and chloroform with plenty of air, only moderate anesthesia being advisable in the worst cases. Where there is general bronchitis, tracheal straidor, orthopnea and some lividity, it may be hazardous to administer chloroform, even in analgesic doses. Hewitt has known a lengthy administration of chloroform to an elderly patient with chronic bronchitis to be followed by fatal increase of the disease, and this points out a danger not always realized. Patients who have been confined to bed with some constitutional disease are not, as a rule, bad subjects for anesthesia, but it does not follow that a smooth anesthesia will be obtained. Much seems to depend on the type to which the patient belonged before his illness and the duration of the malady. The robust man who has suffered from appendicitis may not be a good subject. Patients suffering from heart disease are not bad subjects, provided the methods employed are suitable. Air-limitation in these cases must be practiced with caution, and he thinks even the administration of pure nitrous oxid contraindicated in the more advanced forms of heart affections. Many difficulties are explained by the asser tion that the patient was nervous. He doubts whether mental disquiet leads to any great trouble, but in a few cases he has satisfied himself that the patient's nervous state has given him some trouble, and large quantities of anesthetic may be required. Referring to smokers he says: There is likely to be considerable spasm of the jaws in some cases, which may be due to suction, puffing and other movements, essential to the smoking of a pipe, and causing muscle hypertrophy. If in any case we find two, three or four of these conditions associated, the difficulty is naturally increased. The pure types are not common. Athletes frequently have nasal obstruction, which, with good muscle development and good teeth, may produce considerable trouble. If excessive smoking has also been the habit, the case will be still further embarrassed; similarly with drinking. In some of these cases the tongue has to be drawn forward while chloroform, the only possible anesthetic, is given. If there is grave constitutional disorder existing, as, for example, in a stout, breathless old man, an excessive smoker and drinker, suffering for years from nasal polypi and seized with acute intestinal obstruction, no worse subject can be imagined. He advises putting these patients on their side and using chloroform and ether mixture or the A. C. E. mixture to begin with, substituting for it ether when the anesthesia is continued. Lastly, he mentions cases where no cause is evident for the trouble, and he warrants

the retention of the term idiosyncrasy for such cases.

The Surgical Treatment of Cirrhosis of the Liver.

Robert B. Greenough (American Journal of the Medical Sciences) says (1) The condition known as biliary cirrhosis, with enlarged liver, jaundice, and fever and without ascites, is accompanied in a certain proportion of cases by an infection of the bile-ducts. The drainage of the bile-ducts by cholecystostomy is a proper operation for the relief of this condition. When evidence of infection is present and symptomatic treatment has failed to effect relief. (2) Of 105 cases of liver cirrhosis which presented the symptoms of ascites, 42 per cent. were improved and 58 per cent. not improved by Talma's operation or one of its modifications. The mortality within thirty days was 29.5 per cent. Nine cases were improved in health two years after the operation. (3) The nine cases of continued relief presented no marked difference from the general character of all the cases. (4) The cases in which the liver was enlarged gave a lower mortality and a higher percentage of improvement than cases of atrophic liver. (5) Cases of suture of the omentum between the layers of the abdominal wall gave a lower mortality and a slightly higher percentage of improvement than cases in which only peritoneal serfaces were brought in contact. (6) Drainage increases the danger of septic infection and peritonitis and is to be avoided. If necessary, tapping may be done after the operation. (7) The presence of adhesions or perihepatitis is of good prognostic import as regards the success of the operation. (8) The number of tappings before operation and the presence of œdema of the feet and legs are of less prognostic importance than the general condition of the patient, the size of the liver, and the functional activity of the liver cells. (9) Talma's operation, or one of its modifications, is of proved benefit in a certain limited number of cases of liver cirrhosis, primarily for the relief of ascites, and, secondarily, for the relief of other symptoms of portal congestion. (10) The dangers attending the operation are mainly due to the weakened resistance of the patient rather than to the operation itself. The selection of cases suitable for operation demands more judgment than has been exercised hitherto. (11) The operation is not indicated in cases of ascites due to causes other than cirrhosis of the liver. (12) The operation is contra-indicated in the presence of renal or cardiac disease, and when good evidence does not exist that sufficient functional liver tissue remains to maintain life. It is also contra-indicated when complications exist sufficient in themselves to make the result of operation uncertain.

Treatment of Infantile Eczema.

A. Ravogli (Cincinnati Lancet Clinic) discusses this rather common affection of childhood. Among the factors which unite to produce this disease, he mentions the sensitive nervous system of infancy; the presence of noxious irritants, especially microorganisms of the type of the staphylococcus pyogenes aureus, which become harmful when there is malnutrition or circulatory trouble causing blood stasis in the skin; a seborrheic condition of the skin; any general dyscrasia, such as anemia, scrofula or diabetes; and the digestive disturbances, especially those of bottle-fed children. In the matter of treatment he says:

"We have to deal with a disease which, although local on the skin, is intimately connected with an altered condition of the nutrition of the general system. This shows that the diet is quite often the cause of gastro-intestinal disorders, and also of an excessive nutrition capable of maintaining the chronicity of eczema. For this reason we must investigate the matter of the food, in reference to its character, ways of preparation, frequency of feeding, etc. In a case of a nursing infant, the milk of the mother or of the nurse must be intelligently examined. The child affected with eczema is sometimes very well nourished, and in this case the milk is too rich and contains too much fat. It is necessary to reduce the hypernutritive power of the milk by subjecting the mother or the nurse to strict rules in her diet, avoiding malt liquors, alcohol in any form, and reducing the quantity of meat. In other cases the child shows symptoms of indigestion, often vomits curdled milk, has frequent stools of a greenish color, which is the result of an excessive quantity of the proteids in the milk. In these cases the food should be reduced by lengthening the period between the nursings, and the child must not be allowed to take too much milk at one time. Between times the child will be given some clear water or some alkaline water to drink. When the children are upon cow's milk it is necessary to watch the quantity of the proteids, and at first milk rather low in proteids and higher in fat ought to be given. This is obtained by diluting the milk with a standard solution of milk sugar, from four to six, which reduces the proteids, and leaves the fat in the same quantity. In children in the second year of life overfeeding is a common error, and usually they

receive too much solid food, which must be restricted. The best diet at that age consists of milk, beef broth, eggs, fruits, and a little red meat, with the addition of rice, wheat or barley.

"Children should have plenty of water, and if necessary to stimulate the kidneys a little citrate or acetate of potassium, in a dose of ten to twenty grains daily, can be added to the water. Our attention must be given to the bowels, and when the children are somewhat costive the use of calomel, from a half to one grain, will be administered once a week. Some minor purgatives may be required to move the bowels, like citrate of magnesium, phosphate of sodium, cascara, castor oil. In cases of diarrhea the administration of salol and bicarbonate of soda, two grains each three times a day, will be found of great benefit.

"In poorly nourished children, anemic or of scrofulous habit, iron, tonics, and codliver oil are to be used. Arsenic in eczema is of no specific value.

"On the locality it is necessary to enforce strict cleanliness. When the scalp and the face are covered with dry thick crusts, an inunction with vaseline or with cod-liver oil will be useful in order to soften the crusts and have them removed. In acute eczema washing with soap and water will be found to have rather irritating results, but this does not mean that children with eczema must be left dirty. They can be washed with bran or starch water, or with a mild solution of bicarbonate of sodium.

"The clothing must not be excessive enough to keep the child constantly in perspiration. In case of eczema of the buttocks and of the genitals, the napkins must be always clean and dry, and must never be used the second time after having been only dried.

"In case of an acute eczema or of an exacerbation of the affection, the child will be kept indoors, but as soon as the child is better it must be allowed to go out into the air. The eczematous surface must, however, be covered with salve to protect it from the air.

"The local treatment of infantile eczema must be followed according to the stage of the disease. In an acute form, when of erythematous nature, seated especially around the genitals and the folds of the neck, the use of dusting powders like oxide of zinc, bismuth, or rice powder and boric or salicylic acid are found of great benefit, but in these cases the skin surfaces which are in apposition must be separated by strips of lint or absorbent cotton.

"In case of an acute eczema with deep excoriations, accompanied by an abundant serous discharge and unbearable itching sensation, the use of the ichthyol in liniment form has been beneficial in many cases.

Ichthyol	dr. 2
Olei amygd. dulc	dr. 4
Aq. calcis	dr. 4
Aq. rosæ	oz. 1
Glycerin	oz. 1

"This applied on strips of lint saturated in the liniment left on as long as possible. Ichthyol cornifies the epidermic cells of the corpus mucosum and forms a temporary protection to the papillary layer, diminishing the serous exudation and relieving the itching sensation. The surface is washed with a mild solution of 1 per cent. of carbolic acid, or of borate of sodium, before the liniment is applied again.

"In cases of acute eczema as a sedative lotion I use calamin:

Pulv. calamin prep.	dr. 2
Zinc. oxid	dr. 2
Glycerin	oz. 1½
Aq. rosæ	oz. 1½

which is applied on the surface with a camel's hair brush, or with a piece of lint dipped in the lotion.

"When the eczema is accompanied by marked seborrheic condition of the scalp and face, the use of resorcin is very beneficial. This can be applied in the form of an ointment:

Resorcin	gr. 10
Ungt. aq. ros.	oz. 1

or in association with salicylic acid:

Resorcin	gr. 15
Acid. salicyl.	gr. 6
Vaseline flav.	oz. 1

It cleanses the surface, diminishes the exudation and the secretion of sebaccous matter.

"Pastes are applied to protect the affected surfaces, as continuation of the treatment. Lassar's paste is very useful and a good composition:

Acid. salicyl	gr. 10
Zinc. oxid.	dr. 2
Amyl.	dr. 2
Vaseline	oz. 1

which is easily removed by wiping it off with a little olive oil.

"In eczema accompanied by prurigo, the use of sulphur gives good results. This is mixed with the Lassar's paste and is spread on the affected parts. In case of pustular eczema of the scalp the salve with white precipitate has given good results. I use the following form:

Hydrarg. praecip. alb	gr. 10
Zinc oxid.	dr. ½
Bismuth subcarb.	dr. ½
Acid. carbol.	gtt. 10
Vaselin flav.	oz. 1

"When the inflammation has subsided,

when the epidermis is forming again and the exudation has been reduced, the application of tar becomes very useful:

Unguent. picis liquid	dr.	3
Zinc. oxid.	dr.	1½
Unguent. aq. ros.	dr.	6

"In case it is difficult to keep the mask and the ointment on the face, Pick's paste can be tried.

Pulv. tragacanthæ	dr.	1
Glycerin	dr.	1½
Aq. rosæ	oz.	4

which is made the base of the ointment and to which oxid of zinc, acid carbolic or tar is added in due proportion.

"In many cases the old Wilson's salve is of great benefit, and in some cases, where any other application, instead of giving relief, increased the trouble, the application of this salve has given me the most satisfactory results.

"When the eczema has healed up but the skin is still tender, easily cracks, and is sometimes itchy, I recommend the application of a solution of carbolic acid:

Acid carboli	dr.	1
Glycerin	dr.	1
Aq. rosæ		
Alcohol	aa. oz.	3

which is rubbed on the skin with a cotton tampon, and then dried and dusted with rice powder."

Pathology of Typhoid Fever.

Alexander Bate, in the Medical News, draws special attention to the probable pathologic conditions in those cases of typhoid fever which are apparently shortened in duration. After a lengthy description of the bacillus typhosus, the most frequent media through which it is conveyed to man and the causes which predispose to an attack of typhoid, he goes on to more fully describe the changes that occur in the blood and tissues when they liberate the typhotoxicon of Brieger, the toxalbumin of Frænkel, and the ptomain of Vaughan, in the human system. In the blood, the fibrin is diminished, the leucocytes are increased, and typhoid anti-bodies or enzymes appear. This altered state of the blood causes changes of the nature of parenchymatous degeneration in all the structures of the body. The spleen is the earliest to manifest these changes; the liver and gall-bladder are infected; the kidneys undergo degeneration and may be the seat of infractions; the urine becomes twice as toxic as ordinary urine, and perinephritic abscesses are not uncommon; the heart is the seat of early parenchymatous changes, and thrombi are found in its chambers. The lungs undergo a "splenisation" which is neither a true pneumonia nor yet static in type; the larynx and eustachian tubes are ulcerated, and the brain and nervous system are always affected; the walls of the stomach degenerate as do the muscles, and the subcutaneous cellular tissue may become the seat of ulceration or furunculosis. The classical pathological procedure in the mesenteric and intestinal glands is of three varieties. The first is that in which the mucous membrane of the ileum, the Peyerian patches and the follicles near the ileocæcal valve undergo catarrhal inflammation in the first week. During the second this subsides, increasing hyperplasia of the glands, which progresses to ulceration and is followed by sloughing in the third week and cicatrisation and repair in the fourth week. Perforation and hæmorrhage may occur with these changes. In the second process the termination is by the tissue between the follicles remaining infiltrated and elevated while their contents are absorbed; or individual follicles rupture and discharge their contents into the intestine. The third variety is characterised by, instead of, hyperplasia occurring in the follicles and the slough forming, instead of the follicles remaining infiltrated and elevated, and the glands rupturing, the new elements in these ductless glands become disintegrated and undergo absorption, and in this way gradually undergo resolution. This is probably the process in relapses, in which the fever ends almost by crisis on the fourteenth day of the relapse; these cases are referred to as abortive and ambulatory typhoid. The tendency of modern pathologists is to the opinion that true typhoid toxæmia is limited in many instances to fourteen days, and that the manifestations after that time are dependent upon intestinal ulcerations. Therefore, since intestinal ulceration has been proven to be non-essential to typhoid fever, it seems not unreasonable that therapy may soon claim to so modify the course of the disease as to limit its duration, in the great majority of cases, to fourteen instead of the classical 28 days.

The Treatment of Nervous Affections of the Heart.

Gibson (Edinburgh Medical Journal, November, 1902) says that in a considerable proportion of cases, no matter what may be the type of the affection, the practitioner is called in to minister to the patient during a paroxysm. Considerable acidity of the stomach, or moderate distention of the hollow viscera, may, by irritation, be a reflex cause of an attack of cardiac pain. When extreme, a distended condition of the stomach and intestines may be a direct mechanical source of dis-

turbance. Interference with the blood current through the lungs is an adequate agent in certain cases, by increasing the stress on the right, just as disorder of the various excretory channels, such as the skin or the kidney or the bowel, is an efficient factor by augmenting the stress on the left side of the heart. Further, the amount of muscular exertion and fatigue and the extent of mental occupation or exhaustion must be considered and estimated. In each and all of these directions the proximate agent in the cause of the attack must, if possible, be ascertained and obviated. Antacids and carminatives for digestive troubles, remedies which will relieve bronchial affections and stimulate excretory channels—such remedies will readily occur to the skillful practitioner.

Among the remedies acting directly upon the circulation and modifying its condition, the vaso-dilators hold a prominent place; and, in instances attended by an increase of blood pressure they are of much importance. The nitrites of amyl and butyl may be administered by inhalation in doses of from three to five minims, and the most convenient method of exhibition is by means of glass capsules. Each of them has certain disadvantages, such as the sensation of fulness of the head, which often leaves headache and giddiness behind it. Though more frequently found to result from butyl, these sensations are sometimes even more marked in the case of amyl. A combination of ethyl iodide and chloroform in capsules, each containing five minims of the former and ten of the latter, is found by the author to be valuable. As stimulants the various forms of ethylic alcohol are of importance. In many cases, such measures require to be superseded by the employment of anodynes, chloroform and ether taking the first place, the subcutaneous injection of morphine being occasionally demanded by the conditions present. Many paroxysms are only amenable to such measures, and there need be no reluctance in their employment, seeing that in the dosage employed, they can only act as stimulants to the circulation, as well as sedatives to the nervous system. Change of position and selection of the posture most comfortable for the patient will require attention, while abundant fresh air must be secured, if the patient has an attack in the house. The application of heat externally to the chest may often be of use.

When no one of the iodides of potassium, sodium, strontium, or calcium, can be tolerated, the author relies upon hydriodic acid, the syrup of which contains one per cent. of hydriodic acid by weight, and may be given in one drachm doses, gradually increased and well diluted. During the employment of the iodides, a mild mercurial aperient for a few days, and a saline draught every morning, are powerful aids in the treatment of the organic types of cardiac pain.

The neurasthenic and hysterical varieties of cardiac pain yields to the general management of the conditions with which they are connected.

Mimicry of Pregnancy by Fibroid and Ovarian Tumors.

Kelly (Amer. Gyne.) mentions several histories of mistaken diagnosis from his own experience and that of his colleagues, showing that a serious and a mortifying error in diagnosis may be made unless great care is exercised. The author believes the following elements as misleading in many of these cases: The patient may be very fat, making it difficult to palpate and percuss with precision. The vaginia may present a more or less characteristic violet discoloration. The cervix may be soft. The breasts may be large, painful, and may contain fluid. There may be a cessation of menstruation, with more or less nausea. The linea nigra may be well defined. There may be a regular enlargement of the abdomen, more or less corresponding to the calculated period of pregnancy. The mass may closely resemble a fetus in the abdomen, presenting a head, body and hands. The subjective sensation of movements may be prominent. A perfect abdominal ballottement may be present; but a diagnosis can always be made by a thorough examination and by giving close attention to all the important signs of pregnancy. First and foremost, the fetal heart sound is always absent, and the pulsations in the tumor will not be mistaken for a fetus if the observer is careful to notice that they are synchronous with the radial pulse. In the second place, no one case presents all the mimicking signs, and the omission of one or other of the important signs should put the observer at once on his guard. The presumption is strongly against pregnancy, where there is an unaltered hard cervix. Ascites will usually be distinguished from fluid in utero if examination is made in 4 postures; erect, lying dorsally, and on right and left sides. Lastly, a better knowledge of abdominal palpation in advanced pregnancy will almost always avoid error in diagnosis.

X-Ray in Therapeutics.

Spring (Northwestern Lancet) applied to an ulcer, it lessens discharge, and makes it purulent, followed by rapid formation of epithelium and a very soft, pliant scar.

There is danger in the ray, and in the hands of inexperienced operators it has produced disastrous results. Even the most careful application cannot always avoid a burn which is largely due to the fact that x-ray effects are so late in showing themselves that sufficient radiation to produce a burn may have been given several days before the burn appears, so that subsequent treatments have been cumulative. We are always trying to produce as much effect as possible without the burn, and since some cases undoubtedly do not show improvement until a dermatitis is produced we are on dangerous ground in every case.

The effects of x-ray applications persist for a long time after the treatment and we must therefore not be too hasty in concluding either that there will be no good results or that our cures are permanent.

My conclusions are:

1. In superficial malignant growths, the certainty of cure by the x-ray is so great and the recurrences after operations are so frequent that it is at least an open question whether it is advisable to operate at all. Some of the men most experienced in the use of the x-ray are decidedly opposed to any operative measures.

2. In cases that can be thoroughly operated upon I believe a short period of x-ray treatment before the operation is desirable to destroy the outlying portions of the growths; and knowing the frequency of recurrence after operation it is important to direct attention to the desirability of giving the patient every possible chance by the immediate application of the x-ray without waiting for any new growths to take place. The patient should then be carefully watched and at the first evidence that the operation and x-ray treatment have been unsuccessful the treatment should be immediately renewed.

3. In large growths removal is desirable or establishing free drainage to prevent auto-intoxication, which is a very real danger in aged persons or those much debilitated as is shown by the number of patients who have succumbed to toxemia during treatment.

4. Inoperable cases should certainly be given the benefit of the x-ray for we have the reports of two many that have been relieved of pain, have had foul discharges stopped, hemorrhage lessened or stopped, and their lives prolonged and made comfortable, to refuse these sufferers any chance of relief.

Most important is the fact that some such cases have been permanently cured, and in affording these inoperable cases relief we shall give to some of them restored health.

Diagnosis of Surgical Diseases of the Kidney.

Gutéras (Medical Record) has formulated the following principles as guides to diagnosis: 1. In a case of pyuria, the seat and nature of the lesion should be determined by all methods before an exploratory incision or operative procedure is attempted. These methods include: (1) Examination of urine, including cryoscopy and the phloridzin test; (2) Cystoscopy; (3) Ureteral catheterization; (4) Segregation of urine; (5) Radioscopy. 2. Examination of the urine is of utmost importance. 3. Careful study of pus, blood, casts, and particularly the epithelial elements to determine the nature of the lesion and seat thereof. 4. A renal lesion of suppurative character being found, it becomes necessary to locate it in one or the other kidney or to determine whether the opposite kidney is present and healthy. This may be done with the aid of cystoscopy, ureteral catheterization, combined with the phloridzin test and followed by examination of urines of each kidney, with the aid of the Rontgen rays, and if need be, in case of doubt, of exploratory incision. 5. An omission of one or more links in the chain of methods of examination may give rise to grave errors in diagnosis, and nephrectomy is never justified when we are not in the position to say that the opposite kidney is present and in good condition, on the basis of the tests herein mentioned.

Static Electrotherapy.

The principles of static electrotherapy may be stated in the form of a brief catechism as follows: (X-Ray Journal.)

1. Is hyperemia of any part of the body required?—Use the kathode with sparks or stinging breeze.

2. Is hardened or proliferated connective tissue to be dissolved?—Use the kathode.

3. Is ischemia, or diminished blood supply of any part, desired?—Use the anodal breeze.

4. Is accelerated tissue change desired?—Use the sinusoidal current if these tissues are good conductors; otherwise, the x-ray.

5. Is the patient in a passive condition?—Use suggestion.

6. Are none of these effects desired?—Do not use static electricity.

Obscure Abdominal Pain.

Bennett (British Medical Journal) reports two cases, both puzzling as to the diagnosis, in which operation revealed no adequate cause for the symptoms. In one there was before operation no doubt as to there being obstructive jaundice, either simple or complicated, and yet operation showed that there was nothing to support such a diagnosis in either the liver, gall bladder or gall duct. It is a curious fact, too, that anodynes of the nature of phenacetin had more complete control over the pain than morphin injections, and it is noticeable also that after the urine and feces had become perfectly normal, the main features of the case showed very little alteration. The subsidence of symptoms after operation suggested functional nervous disturbance, but it is hard to see how this could account for all the symptoms of illness and of high temperature lasting nearly four months. In the second case diverse diagnoses were made, including gastric catarrh, duodenal ulcer, gallstones, gastroptosis, cancer, etc. There was found a perfectly normal gastric mucous membrane and a normal pylorus with no signs of chronic catarrh and no scars of ulcers, though old fibrous adhesions were found. Bennett suggests a possible edematous condition of the duodenum or pylorus with disturbed innervation and neuralgic pain might account for the fibrous hyperplasia that was found. In a note to the article Bennett suggests that complete relief, which at the time of the writing was not apparent, will ensue later, as the result of treatment, and Pritchard, in a later note, says that this prediction has been partially realized.

Method of Giving Mercury in Syphilis.

Fournier (British Medical Journal) rejects fumigation, baths, mercurial plasters and other such methods as being scientifically obsolete, and gives the three possible methods of to-day as: 1, internally (by the mouth); 2, inunction; 3, hypodermic injections, with the following advantages:

Advantages of ingestion are: 1, Ease of administration; 2, well tolerated; 3, proved activity.

Disadvantages of ingestion are: 1. May upset digestion; 2, can only use moderate doses, heroic ones causing intestinal irritation; 3, hence not suited when quick action is necessary.

Advantages of inunction: 1. Very active; 2, only occasionally disturbs digestion; 3, does not interfere with administration of other medicines.

Disadvantages of inunction: 1. The trouble of applying; 2, secrecy difficult; 3, likely to occasion stomatitis; 4, curative effects variable according to thoroughness of administration.

Advantages of injection: 1. Active and easily regulated; 2, does not disturb digestion; 3, stomach free for other agents; 4, if occasional large injection, remarkably active.

Disadvantages of injection: 1. Dangers of local complications: 2, pain (sometimes very intense); 3, trouble of regular administration.

Sepsis Following Abortion and Labor.

Henry (West. Med. Review) gives the treatment of sepsis, occurring as a complication of these conditions:

1. Remove early with the finger, sharp curette and flushing all debris, decidua, blood-clots and sloughing tissue which may be infected, from the uterus and from all raw surfaces of cervix, vagina and vulva.

2. Dry all these raw surfaces and freely apply to them the 95 per cent. carbolic acid, washing away the surplus with sterile water.

3. Unless hemorrhage require, leave no tubes or packing of any kind in either vagina or uterus.

4. Have a simple carbolized, 2 per cent, vaginal douche used twice a day.

5. Open the bowels freely with calomel, ½ grain, every hour for four hours, to be followed by Rochelle salts until sufficient action has occurred.

6. Give quinin, 3 grains, every four hours, followed by tincture of the chlorid of iron, 15 drops, in water.

7. Give good nourishment, with milk, eggs and stimulants every four hours.

8. Let this be the routine *early treatment*.

9. When fixation of the uterus occurs and infiltration takes place in Douglas' culde-sac or in the broad ligaments, or when the tubes or ovaries fill with pus in acute cases, open promptly and drain through the vagina.

10. If the multiple abscesses occur in the uterine walls, if the walls become badly infected, or if necessary in order to secure perfect drainage for a badly-infected pelvic cavity, remove the uterus and all else necessary by the vaginal route.

Appendicitis.

Ricketts (American Journal of Surgery and Gynecology, December, 1902) describes pus accumulations in this disease, each depending upon location: (1) Intra-appendicular; (2) peri-appendicular; (3) general peritoneal; (4) retrocæcal.

These are given in order of their supposed frequency. Drainage in the first is

not to be considered, removal of the appendix and closure of the belly wall being all that is necessary.

The second is more complicated and diversified in character. It is highly probable that the cases of this class requiring drainage are limited to those in which there is a perforation of the gut or the appendix itself, or both, especially the former, and the latter, too, if not removed when perforated. There are a certain number of cases of rupture of the appendix in which closure without drainage would be appropriate. This is possibly true of direct perforation into the intestinal cavity as well.

The third class (general) may be the result of any of the other three types with or without perforation; usually perforation of the appendix or gut, or both, is present.

It is this class of cases which frequently terminates fatally. Seventy per cent of the author's deaths are in this class of cases. While the inflammatory process may be either localized or general.

The fourth class includes all retroperitoneal abscesses, and is less frequent than any of the three preceding types.

There may or may not be perforation of the cæcum or appendix, or both.

Rupture of abscess may be into the gut, the general peritoneal cavity, the pleural cavity, the lung, or all; or it may be rupture externally at almost any part of the body, from the shoulder to the knee, or into the vagina or rectum.

This is the most difficult to drain. Pus is usually very offensive, and must be subject to constant drainage. Fully thirty per cent of the writer's deaths in appendicectomies have, in this class, no doubt been due to imperfect drainage.

A more perfect system of drainage in this class is desired. The so-called flank drainage appears ideal, but as yet no perfect method has been inaugurated—one that will give perfect and lasting drainage, things which are absolutely necessary for a successful termination of such cases.

Drainage-tubes, gauze, and the various substances for drainage should be discontinued in a great majority of pus cases, if not in all. They are foreign bodies, and are known to be more or less objectionable.

Phagocytosis is the probable ground on which to base any hope for the discontinuance of the use of tubes, gauze, and the various substances so frequently used. If this theory is correct (and the evidence is rapidly accumulating to substantiate its being so), the fact should become more generally known, and the method of its application better understood. Pus in all cases should not be subjected to phagocytes, neither should pus in all cases be removed by drainage.

If opening the abdominal cavity, together with removal of fluid and immediate closure of that abdominal cavity, in tubercular peritonitis is all that is necessary to cure it, why shouldn't the peritoneum (being nothing more or less than a lymphatic gland) be able to absorb and destroy bacteria, as suggested by Metchnikoff? Certain it is that to phagocytosis must we look for a more rational method of dealing with certain types of pus within the peritoneal cavity.

Typhoid Fever with Trichiniasis and Eosinophilia.

McCrae (American Journal of the Medical Sciences) mentions a case in which the association of typhoid fever with trichiniasis was placed beyond reasonable doubt. There is only one other case, reported by Fischer in 1898, in which this can be said to be the case. In that instance the diagnosis was established by a necropsy. The present case was in the Johns Hopkins Hospital, in Osler's clinic, and was frequently seen by that physician. The patient was a German, aged twenty-three, who had been in the habit of eating raw sausage every week, and raw ham occasionally. All the cardinal symptoms of enteric were present except diarrhea, which although present at first was not typical. Temperature on admission, 103.2 deg. F. It was an examination of the blood that first suggested the possibility of trichiniasis. A differential count showed leucocytes 11,000 and 65 per cent. of eosinophiles. In view of the now established almost invariable occurrence of eosinophilia in trichiniasis, a piece of muscle was removed from the gastrocnemius with negative results. The patient passed through a moderate attack of enteric, and the temperature gradually came down and reached normal on the twenty-third day. In two days' time he was, however, attacked by symptoms of acute pneumonia on the right side. From this he recovered in the course of a few days. During the whole illness, however, eosinophilia was present, the eosinophilic corpuscles varying from 4.5 to 43.8 per cent. Later in the case a piece of muscle taken from the biceps showed undoubted trichinæ spirales.

A noteworthy feature in this case was the presence in the early blood specimens of cells seemingly intermediate in character between neutrophilis and eosinophiles. The same thing has been noted by Brown in some of the cases he has recorded of trichiniasis with eosinophilia. Later in the case these intermediate cells disappeared, and the eosinophiles were all normal in

character. The author discusses the probable singnificance of this fact. Does it indicate the derivation of eosinophilic from neutrophilic cells? In the muscle itself, affected by trichiniasis in early stages, many cells have been found which suggested transition stages between neutrophiles and eosinophiles. The case here recorded, however, and one by Atkinson, are the only ones where these atypical cells were found in the circulating blood. In the present case, during the attack of pneumonia, the neutrophilic cells were largely increased in number. This is usual, and McCrae is inclined to regard chemiotactic action as the best explanation both of the increased neutrophilic and eosinodhilic cells.

The author, in concluding, lays stress on the diagnostic value of the blood changes in trichiniasis. It was only the persistence of the eosinophilia in this case which led to the recognition of the rare complication present with the typhoid fever.

The Blood of Pregnancy and the Puerperium.

Pray (American Gynecology) concludes that:

1. Where blood generation fails to keep pace with the increased vascular area a serous dilution of the blood takes place.

2. In the majority of cases this is not serious and can be overcome by simple hygienic measures—fresh air, good food and the overcoming of constipation. Cases in which the vitality is overtaxed by the increased demand for nutrition may call for iron or other hematinic treatment.

3. The regeneration of the blood is partly effected by the lessening of the vascular area after labor, and subsequent transudation of fluids of the blood into the tissues.

4. The leucocytosis due to increased action of enlarged lymph glands of the pelvis, and in part to increased metabolism, which causes a somewhat toxic condition. Its decrease is caused by the lochial discharge. Its persistence is accounted for by the fact that involution of the hypertrophied pelvic organs and the breasts is accomplished in a great measure by the leucocytes.

5. A study of the blood of a woman delievered by the Cesarean operation shows the same behavior of the blood constituents as does that of women after normal labors.

Diabetes Insipidus.

Futcher (Johns Hopkins Hospital Reports, vol. x, p. 197) reports the clinical histories of five cases of diabetes insipidus, and a large series of observations on the variations of the condition relative to diet, fluids ingested, etc. The writer states that the old classification under the headings of hydruria, azoturia, and anazoturia is no longer tenable, the nitrogenous constituents of the urine being almost entirely dependent on the nature of the food. Clinically the cases come under two headings—the primary cases in which there is no evident organic basis for the disease, and the secondary cases where there is some definite organic lesion of the nervous system. Tumors involving the floor of the fourth ventricle and the medulla, cerebral hemorrhages, and basilar meningitis are the commonest of the lesions, and cerebral syphilis in the form of basic meningitis is apparently more frequently the cause than is commonly supposed. Four of the five cases recorded gave evidence of marked cerebral disturbance; one was undoubtedly and two probably due to cerebral syphilis, one due to some cerebral disease, and the remaining case to some condition of unknown character. Antisyphilitic treatment is uncertain in results, but sometimes very successful.

An Improved Method for the Microscopical Diagnosis of Intermittent Fever.

Ross (The London Medical Lancet, Jan. 10, 1903) mentions the difficulty in detecting the malarial organisms from the obscuring effect of the massed corpuscles. His method is as follows: A large drop of blood, amounting to, say, 20 mm., is taken up on the glass slide or cover-glass and is slightly spread out by means of a needle or lancet—that is, it is spread over an area which can be covered by an ordinary cover-glass. It is then allowed to dry, either naturally or over a flame (without heating so much as to fix the hæmoglobin). The result is that we have a thick dried film of blood in which about 2 c. mm. of blood (instead of the 1 c.mm. generally used) are disposed over an area which is not larger than the area of blood usually examined by the ordinary processes. As soon as the film is perfectly dry, he lays upon it, by means of a glass rod, a quantity of aqueous eosin solution sufficient to cover the film of blood. The solution is the one which is usually employed in order to obtain the Romanowsky effect. It is allowed to remain upon the film of blood for a period up to about a quarter of an hour. This period should be inversely proportionate to the strength of the solution. As the film of blood has not been fixed, the solution of eosin will take out the hæmoglobin of the dried corpuscles, and, at the same time, will stain the residual mass consisting of the stromata of the corpuscles, the leucocytes, blood-plates, and parasites. After the solution has remained upon the film for the period required it is washed off by a very gentle stream of water. As the film has not yet been fixed to the glass, it is most essential

here to use no strong current of water, or else the whole of the residual mass will become detached from the surface of the glass. As soon as the eosin solution has been washed out a weak solution of the metylene blue, which is employed for the Romanowsky stain, is allowed to run over the film, just as was done for the eosin solution. The blue is permitted to remain only for a few seconds, the time varying inversely with the strength of the solution. Especial care must be taken not to stain the preparation too dark a color. Next the blue is washed off very gently in its turn and the preparation is complete. We can now dry the stained film and mount in Canada balsam, or examine it directly by placing a drop of cedar oil upon it for the emersion lens; or we can mount it in water, place a coverglass over it, and examine as usual.

Tuberculosis.

Philip (The London Practitioner, January, 1903) mentions the significance of the supraclavicular triangle in relation to early changes in the lungs and the best line of percussion for the determination of slight degrees of apical involvement, and lastly the value of what he terms "tidal percussion." The normal upper limit of the lung resonance, he claims, reaches one and a half to two inches above the clavicle, and he gives illustrations. The best line of percussion for a slight obstruction of the apical involvement is described by him as follows: The pleximeter finger of the left hand is placed across the apex of the lung from back to front, approximately in a plane at right angles to the vertical diameter of the lung. Percussion is practiced with the middle finger of the right hand in a direction at right angles to the pleximeter. The percussion strokes should be firm and sharp, but not too strong. The finger should be laid a little above the clavicle, one and a half inches or more. What he calls "tidal percussion" is the practice of percussion more particularly at the apices, alternated during expiration or easy respiration and during full inspiration, which is quite markedly different in the healthy subject and in conditions of slight involvement. The value of "tidal resonance" is also remarked in observation of the course of the disease, and if it becomes arrested considerable improvement in tidal resonance is frequently to be noticed, and this return is a most satisfactory indication.

The Surgical Treatment of the Enlarged Prostate.

Armstrong (Philadelphia Medical Journal, December 27th, 1902).—Operative intervention in prostatic hypertrophy is very unsatisfactory. He has tried McGill's method of suprapubic removal in nine cases, and has had a large mortality. Sir William Macewen has abandoned this operation for the same reason. Bottini's operation has apparently given fair results. Freudenberg has collected 752 cases in which results were good in 86 (six per cent.), failures were 6 (seven per cent.), and the mortality was 4 (five per cent.) He is now using a special method, and reports seven cases of his own and three cases by the same method by his colleague, Dr. Elder. The results in these ten cases were good in 5, fair in 3, death in 1, and in one case it is too early to say. Of these cases two had Bright's disease, and one, malignant disease of the prostate. The operation used is performed as follows: By means of a suprapubic section the bladder is entered and the obstructing lobes of the prostate carefully removed by the thermocautery. The internal orifice of the urethra must not be damaged. The advantages claimed for the operation are: First, nothing is done in the dark, and hæmorrhage is under complete control; secondly, the contracting scar resulting from the burn opens and lowers the internal orifice of the urethra and lifts the floor of the bladder; thirdly, a non-absorbing charred surface is left behind and good drainage is easily obtained by means of the suprapubic opening with the addition of a catheter in the urethra. It is not possible in any case to close the suprapublic opening. He believes the method to be exceedingly safe in all casses that are seen early.

Atonic Gastric Insufficiency and Dilatation.

Robert Saundby (British Medical Journal) describes the method recommended for diagnosis of this condition by Meinert. This consists of 120 grains of sodium bicarbonate and 90 grains of tartaric acid, these quantities being dissolved separately and given successively. There is nothing new about the use of these two drugs, except the quantity which is at least quadruple the dose ordinarily advocated. It seems to the author a much more certain way than distending the stomach with air. The etiology of the condition he considers under the following heads: First, age. In males the disease seems rarely to begin before thirty, and although most common between that period and fifty is frequently persistic throughout life. In women, on the other hand, it begins earlier and almost always ceases after fifty. The influence of marriage upon this condition affords little to comment upon, except that the number of single women is somewhat higher. This may, however, be explained by the fact

that most of the author's cases belong to the middle class, in which the married women led comparatively easy lives, while many of the single women were clerks, etc., who suffered from overwork. In the past history of the patient, dyspepsia accounted for 42 per cent., neurasthenia for 29 per cent. Indeed only 10 per cent. can be looked upon as due to pyloric obstruction. In establishing a diagnosis, he does not look upon the stomach as dilated unless it reaches below the level of the umbilicus, only slightly dilated if to the level of the anterior superior spines. Markedly dilated below that line and half way to the pubes, while anything lower than this, he regards as "extreme dilatation." Based upon this classification he finds 15 per cent. were slight, 55 marked and 30 per cent. extreme, so that in 85 per cent. the great curvature reached far below the level of the anterior superior spines. Of the symptoms, pain was by far the most common, it being markedly present in 68 per cent. There seems to be no relation to food, but it was most common in the epigastrium and after eating. Very rarely it was relieved by taking food. Vomiting, a factor which one would expect to be prominent, was insignificant in the author's series, being only 16 per cent., and curiously enough it is more common among men than women. The loss of weight was a prominent factor in 34 per cent., but although this symptom is of great importance, it is a difficult one to establish beyond peradventure, because very few women know what their normal weight is. It is, of course, more prominent in those cases of dilatation due to obstruction than to atony, because the former condition is so frequently malignant. Constipation and diarrhea were not so common as the author had supposed. The first condition was present in about 20 per cent., while the latter was found in only about two or three per cent. Flatulence is extremely common, and there is no doubt that was largely the cause of the pain. It may be due to fermentation and the formation of carbon dioxide, olefiant gas or marsh gas, but it is frequently present where there is no indication of unusually fermentative changes. Its presence in these cases must, therefore, be explained by the supposition that air is either directly swallowed or carried down with the bolus of food on account of lack of tone in the esophagus. The tongue was furred in only 15 per cent. of the cases, and this condition was more frequent among men. Other subsidiary symptoms were water brash, headache and anorexia. The chemistry of the dilated stomach shows free hydrochloric acid present in 60 per cent. of cases, absent in 40 per cent., in excess in 6 per cent. and deficient in 10 per cent. Peptic digestion was normal in 60 per cent., weak in 34 per cent. and absent in 12 per cent. Starch digestion was normal in 90 per cent., and in the remaining ten the erythrodextrine was present. Lactic acid was present in 95 per cent. Sarcinæ were present only in four per ceut., one of which was a case of cancer. Torulæ was slightly more frequent. The prognosis of these cases must be guarded. It improves with the youth of the patient and the history of an acute attack. But some of the most pronounced cases show an improvement under judicious treatment, which is truly astonishing. The author has found electricity to be of no use, and depends entirely upon a modified Weir-Mitchell course. At the end of six weeks of such treatment, there is usually a pronounced improvement, if not a cure, but in a proportion of the cases, the operation of gastro-enterostomy is so eminently rational and so free from danger that no careful observer can deprecate its value. Nevertheless this method of enforced rest for the paretic stomach often fails to give relief.

Hot Water Injections for Vascular Neoplasms.

J. A. Wyeth (N. Y. Med. Jour.) has for some time been treating angiomata of various kinds with injections of hot water. The tumors so treated include arterial angioma (cirsoid aneurysm,) capillary angioma (cavernous nevus). Wyeth uses a syringe with a metal cylinder and adjustable piston, with needles of varying sizes; and under the ordinary aseptic precautions boiling water is injected into the substance of the tumor. The quantity of water employed and its temperature varies with the size and character of the neoplasm. In the arterial and venous tumors of large size the needle is thrust deeply into the mass, and from thirty to sixty minims of water are forced out. It is then withdrawn from one-half of an inch to an inch, and this operation is repeated until the entire tumor is solidified. The water should be hot enough immediately to coagulate the blood and the albuminoids of the tissues, but it should not be forced in so extremely hot and under such pressure as to scald and produce a necrosis of the skin. When the tension is sufficiently great to cause a slight bleaching of the integument the injection should be discontinued in that area. In treating the capillary nevi, or "mother's marks," situated upon important structures such as the eyelid, nostril and margins of the lid, a small instrument with a delicate needle should be employed, and water a little below the boiling point (about 190 deg. F.)

is preferable. Not over two to six minims should be injected in a single puncture, and the treatment should start from various points at the periphery, the operator watching closely the effect of the first injections, and after a week or ten days repeating them as may be indicated. Water at a very high temperature is apt to produce slough in the capillary variety. In cirsoid aneurysm and the large cavernous nevi the water should be boiling and kept at the boiling point while the instrument is being used. For this purpose he devised a long metal instrument, beneath the barrel of which a Bunsen burner is held while the operation is being done. In this way the high temperature of the water is maintained within the barrel of the syringe. The operations are performed under complete narcosis, and in only one instance has any painful symptom or septic reaction ensued.

The Malignancy of Joint Tuberculosis.

Painter (Bost. Med and Surg. Jour.) from a study of 47 cases of recurrent illness found that the average duration of quiescence in 45 cases was 12½ years. The average age at time of exacerbation was twenty-eight years. The recurrence of the tuberculous process is most commonly a local one; metastases are rare. Trauma, direct or indirect, is frequently associated with the recurrence. Indirect trauma is probably the exciting cause of most recurrences, especially where partial anchylosis or deformity exists. Patients who have suffered from bone and joint tuberculosis should be cautioned that they are not well when symptoms have ceased, and that reasonable care must be exercised if it is desired to avoid a recurrence of the disease. The chance of recrudescence is lessened by correcting the deformity as far as possible. In the acute cases, in childhood, mechanical fixation should be used. Exploratory interference, however, with a view to removing isolated foci, is advisable in many cases in children, and in a majority of recrudescences, if seen early, exploration may be wisely urged. It is important to recognize the fact that patients with hip disease, Pott's disease and tumor albus have tuberculosis and should be treated accordingly. Painter classifies tuberculous tumors of the joints as malignant, not on morphological grounds, but because of their tendency to recur after removal. In his series of cases 38 recurrences were at the seat of the old disease only. Five were local and metastatic and only four were purely metastatic.

Sarcoma of the Ovary.

Stauder (British Gynecological Journal) reports upon twenty cases of which five were round-celled and two spindle-celled sarcoma, seven of mixed form, and six endotheliomata. They were met with in 295 cases of ovariotomy—*i.e.*, in 6.78 per cent.—and comparatively often in young persons, and even under the age of twenty. Their diagnosis was not assisted by any pathognomonic characteristics; the results of operation, when the tumors were unilateral and removed early, were not unfavorable; there were seven deaths (31.58 per cent.) occurring from one day to six months after operation. He attributes the fact that the permanent results were so favorable, compared with those of carcinoma, to the large proportion of the ovarian sarcomata being unilateral and little inclined to metastases, and also to the tumors being generally free from adhesions and provided with good pedicles, so that it was possible to make a clean operation.

The Surgical Treatment of Cancer of the Uterus.

Jonnesco (British Gynecological Journal) summarized the question as follows:

(1) The surgical treatment of cancer of the uterus offers sufficiently satisfactory results, prolonging the life of the patient, and in some instances even giving complete cure. (2) The operation of election is the one that will permit the total ablation of the uterus, of its adnexa, of the cellular tissue, and of the lymphatic glands, pelvic, iliac, and lower lumbar. (3) The vaginal way does not permit this and should be abandoned, or reserved as merely a partial or palliative operation. (4) The abdominal way alone permits ample exeresis, and should be adopted whenever the complete operation can be attempted. (5) Operations done even by that way are insufficient and merely palliative unless the evacuation is complete. (6) Total abdominal castration, followed by complete dissection of the pelvis, the iliac fossæ, and the lumbar region, in an operation at once logical, possible, benignant, easy, and efficacious. It is the one that should be preferred. (7) It should be carried out unless the disease is limited, and clinically and during the course of the operation it appears to be possible to cut out all the diseased parts and not to leave any infiltrated tissue or lymphatic glands. (8) Diffuse uterine cancer does not admit of more than palliative treatment. (9) The possibility of operating in the earliest stage of the development of cancer is an indispensable condition for the success of surgical treatment.

The Exploratory Method of Rib-Resection in Old Pyothorax.*

While the principle of Schede, to resect the pleura with the ribs in old pyothorax should always be followed, the method which he advises for that purpose is not to be commended. It is not advisable to outline any definite typical plan, starting with a horse shoe flap.

As recommended in the January issue (1897) of the International Medical Magazine, that rib should be selected which apparently forms the centre of the ceiling of the cavity. This can generally be ascertained by probing the pyothoracic fistula. After a long piece of this rib is removed, the cavity can be explored thoroughly so that the further steps can be outlined. Usually the next lower and next upper rib, together with the costal pleura, are resected first and the adjacent ones so far as the extent of the cavity suggests. No cavity situated above the fourth rib, can be cured by the method of Schede. I have recently resected the first rib in old pyothorax by exposing the axillary vessels first and shifting them aside so that I could gain access to the first rib. The pectoralis major muscle is freed by blunt separation so that it can be retracted upwards. After the pulsation of the axillary artery is felt then the vessel together with the pectoralis muscle is held upwards with a large blunt retractor. Thus the temporary resection of the clavicle can be avoided. If in exceptional cases the pulmonal pleura becomes so much thickened as to obstruct the healing process, removal of the fibrous portion must also be performed.

The surgeon should, in other words, not outline an extensive operation by performing an enormous horse-shoe flap, but to choose a less extensive method from the beginning and to give the necessary elongation later, thus accommodating himself to the conditions as they come up in the further course of the operation, The results are most encouraging.

The Use of Cinnamic Acid and Sodium Cinnamate in the Treatment of Tuberculosis.

Robinson (Merck's Archives, December, 1902) makes the following conclusions:

1. To regard sodium cinnamate as a specific in tuberculosis is absurd. Neither Landerer nor the most ardent of his disciples, Cantrowitz claims it to be such, and only those who have not given the subject any study can bestow upon the drug such title.

2. The drug is probably a useful adjuvant in the treatment of tuberculosis in the first stage.

3. The doses must be small to begin with, and must be increased very gradually. This is a very important point, on which Landerer insists with particular emphasis. He and Cantrowitz ascribe most of the bad results reported by other investigators to the fact that they used too large doses.

4. The drug is contraindicated in cases inclined to hemorrhages, or too soon after a hemorrhage.

5. It should not be used when the temperature is above 101 deg. F.

6. Should a rise of temperature follow an injection it is evidence that the dose was too large, and the next dose should be diminished to three-fourths or one-half.

7. Professor Landerer is a reliable and trustworthy observer, and there is not the slightest justification for mistrusting his statements and reports. But it must be borne in mind that practically similar results are now obtained in most high-class sanatoria where sodium cinnamate does not enter into the treatment.

8. The treatment with sodium cinnamate is harmless, provided it is practiced strictly according to the rules laid down by Landerer. Too large doses may, by causing an excessive serous exudation (leucocytosis) around the tubercular foci, carry some tubercle bacilli into the circulation.

9. Given by mouth, the dose of sodium cinnamate may be quite large, two or three grains. Whether it has any influence on the tuberculous process when thus administered remains to be shown. Cantrowitz is very skeptical in this respect. He says that when given per os it is probably eliminated in the urine, perhaps in the form of hippuric acid.

10. Taken all in all, the author's impression of sodium cinnamate as a curative agent in tuberculosis is a negative one. It is probably useful symptomatically, but even here he prefers creosote and its derivatives.

It is a more grateful task to report favorably upon a drug; but what the profession and humanity need are unbiased, truthful reports and impressions, whether favorable or unfavorable.

On the Treatment of Glycosuria and Diabetes Mellitus with Aspirin.

Williamson (British Medical Journal) recommends the use of aspirin in the treatment of glycosuria and diabetes mellitus. The author says that the drug has the most influence in the less severe and acute forms of diabetes mellitus and chronic glycosuria. In the the most severe and acute forms in young people he has not been able to detect any definite change in the sugar excretion by the use of aspirin. The dose of aspirin required to produce a decided dimi-

* By Carl Beck, M. D.

nution of the sugar excretion in the less severe forms of diabetes is rather large, 15 grains four, five, or sometimes six times a day. The drug requires to be watched, for it sometimes produces noises in the ears and other toxic symptoms of salicylates. It is best to commence with a small dose, 10 grains twice or three times a day, and to increase up to 15 grains four or five times a day, and in some cases six times a day if no noises in the ears or toxic symptoms occur.

Ulcer of the Bladder.

Schmidt, in the Journal in the American Medical Association, describes the appearance of ulcers following nongonorrheal cystitis, also those from gonorrhea, traumatism, tuberculosis, necrosis of a neoplasm, and those of a solitary and perforating type, as seen by the cystoscope. Treatment by irrigations and instillations is not sufficient. The coatings and granulations should be curetted away and the thermo-cautery applied to stop hemorrhage. In generalized nongonorrheal ulceration the bladder must be opened and the entire surface curetted and drainage inserted to put the bladder at rest. In cystitis dolorosa curettement must be followed by tamponing, and this kept up until sensitiveness has disappeared. In tuberculosis, preliminary operation on kidney or ureters may be necessary. When ulceration is due to inoperable neoplasm, cauterization may lessen pain and the ammoniacal condition of the urine. Perforating ulcers require resection. The writer reports several cases.

The Malignancy of Joint Tuberculosis, Illustrated by a Series of Forty-Seven Cases.

Painter (Boston Medical and Surgical Journal, January 8th) calls malignant those cases of joint tuberculosis in which recurrence takes place after a longer or shorter period. Such recurrences are far more frequent than ordinary statistics show, and the majority of books on orthopædic surgery convey an entirely wrong impression of the curability of bone tuberculosis. For instance, the percentage of recoveries during the first decade has been placed as high as 65 per cent., but the period of time covered by these observations has in no case exceeded eight years, while in another series of thirty-nine cases only eight were under observation for over four years. In his forty-seven cases the average interval that elapsed from the end of the treatment of the first attack to the second attack was twelve and one half years, that is four and one half years more than the elapsed time on which the text book statistics were based. The prognosis of bone tuberculosis is, therefore, not so good as has generally been supposed. He draws the following conclusions: (1) Tuberculous disease tends to recur, in a considerable number of cases, after apparent cure. (2) This recurrence is usually local and not metastatic. (3) Trauma is frequently associated with recurrence. (4) Patients who have suffered from bone or joint tuberculosis must be cautioned to be constantly on their guard. (5) Deformity and shortening should be corrected as well as possible. (6) Mechanical fixation is called for in the acute attack in childhood. Exploratory incision is advisable in many cases in children, and is to be urged in the majority of the cases of recrudescence if seen early.

Gallstones.

Kerr (Journal of the American Medical Association) mentions the following points:

Gall-stones are of more frequent occurrence than is usually supposed.

A large number of cases treated for chronic stomach trouble are victims of cholelithiasis.

Tenderness at a point half-way between the right costal cartilage and the umbilicus, elicited either by gentle pressure or by a quick jab of the points of the fingers, is an important diagnostic symptom of cholelithiasis or cholecystitis.

A proper regulation of hygiene, diet containing a large percentage of albuminous or nitrogenous food, abundance of outdoor exercise, and the use of plenty of pure water, are the best prophylactic measures.

The rational treatment of gall-stones (after they have formed) is their removal surgical measures, as there is no internal medicine that can be relied upon, although some remedies may be palliative.

There is an analogy to some extent between inflammation of the gall-bladder and appendicitis.

The best time to operate is after the acute attack has subsided, unless symptoms of sepsis demand immediate surgical intervention.

The X-ray is not as valuable an aid in locating biliary calculi as it is in diagnosing stones in the kidneys.

The operation of cholecystectomy is being more extensively used than formerly, and the results reported have been favorable.

Boiling as a Method of Sterilizing Catheters.

Nancrede and Hutchings (Medical News, January 10th, 1903).—The authors give the conclusions reached after the first set of experiments they made, in which old laboratory cultures were used as the infect-

ing media. They now report notes on ninety-five new experiments in which the catheters were infected by being used on actual cases. Their latest conclusions are as follows: (1) Previous washing with warm soap and water, which is a prerequisite in most methods of chemical sterilization, is not essential when heat is employed. It simply reduces the time required. (2) One of the chief obstacles to the sterilization of catheters is the oily lubricant so generally used. (3) The English catheter is more easily sterilized than the soft rubber ones, and is not damaged by boiling if proper precautions are taken. (4) English web catheters should preferably be boiled in a saturated solution of ammonium sulphate, and subsequently washed in sterile water. (5) The only precaution that must be observed in boiling English catheters is to keep them from coming in contact with the bottom of the vessel in which they are boiled. (6) Finally (*a*) all catheters, except the soft French one, can be sterilized by boiling, provided all air is expelled from their interior; (*b*) although five minutes' immersion in actually boiling water is usually sufficient, yet not less than ten minutes should be employed, especially in the case of instruments of small calibre; (*c*) previous cleaning in soap and water, though not essential, is most desirable and also reduces the time required.

Surgical Treatment of Empyema. A Report Based Upon Seventy-five Cases Observed Chiefly in St. Mary's Hospital for Children.

Dowd (The Medical News). The results are summed up as follows: (1) For simple cases of empyema the following treatment is used: Excision of about one and a half inches of the seventh or eighth rib in the posterior axillary line, light ether anesthesia is usually employed; the purulent coagula are removed; short rubber tubing, cut partly across, doubled and held by large safety pins, is used for drainage; abundant gauze dressing is applied and changed when saturated.

(2) If the patient's condition contraindicates general anesthesia an incision into the chest may be made between two ribs under cocain anesthesia.

(3) Aspiration is only used to give temporary relief in patients who are in great distress from the pressure of the fluid, or temporarily to relieve the second side of a double empyema after the first side has been opened.

(4) The patients are allowed out of bed as soon as is practicable, and the expansion of the lung is encouraged by forced expiration.

(4) Irrigation is only used where there is a foul smelling discharge from necrotic lung tissue.

(6) Secondary operations are not done until good opportunity has been given for healing; usually three or four months should have elapsed after the primary operation, and there should have been no noticeable improvement for about a month.

(7) In the secondary operation the expansion of the lung should be encouraged by incising, stripping back, and, if necessary, removing portions of the thickened pulmonary pleura.

(8) The examination of forty-four of the patients at long periods after operation indicates that recovery is usually complete in the simple cases, and that there is surprisingly little deformity in most of the severe cases.

The Widal Reaction in Infancy and Early Childhood.

Churchill (The Chicago Medical Recorder) says: Seventy-five cases were examined, ranging in age from three months to four years, the idea being that systematic study of the serum reaction in large numbers of infants and children will help to throw light on the frequency of typhoid in early life and the true nature of some of the summer intestinal infections of infancy. Positive results were obtained in 7 cases, from the fourth to the twenty-second day.

He concludes that the Widal reaction occurs in infants and children under the same conditions as in adults. It is perhaps apt to be weaker in early life.

The evidence available is overwhelmingly in favor of the theory that a "positive" reaction means typhoid, regardless of symptoms and physical signs. As these symptoms and signs are often irregular or absent in early life, the reaction is especially valuable at this time, and in two ways: By detecting mild or obscure cases, and by ruling out certain intestinal cases which might be mistaken for typhoid.

About 10 per cent. of a limited series of intestinal infections in Chicago during the summer of 1902 were typhoid; of 127 children, throughout the city, suspiciously sick, about 20 per cent. were typhoid.

Antipyresis in Children.

Saunders (St. L. Cour. of Med.) believes hydrotherapy is the antipyretic measure in children. He says often the combination of hydrotherapy with a drug is better than either alone. This is especially true when the temperature is high—above 105 deg. F. Under this condition absorption of drugs from the alimentary canal is slow and their action uncertain. The best results are obtained by reducing the temperature several

degrees with the bath and sustaining the effect with a suitable drug. Coal tar antipyretics are not to be used where the heart is likely to fail, as in diphtheria and pneumonia, but their use is justified in many conditions, such as the early stages of scarlatina and the exanthemata. In influenza they are indicated for the relief of pain, though a heart stimulant should be combined with them. He has found the combination of poenacetin and camphor an excellent one. Pilocarpin is lauded as an eliminant, especially in scarlet fever and diphtheria. In pneumonia Dr. Saunders regards veratrum viride as the safest antipyretic. The external application of guaiacol as an antipyretic is also favorably mentioned by Saunders. As recommended by DaCosta, not more than thirty drops is to be painted on the abdomen. This method the author has found extremely valuable in young children when the stomach is irritable and hydrotherapy inapplicable. In some cases one drop of the guaiacol will produce the desired effect; in others several drops are necessary.

Miscellaneous.

A New Hospital for Greensboro.

This enterprising, progressive little city is to soon establish a first class up-to-date hospital, to cost thirty or forty thousand dollars. The citizens are to co-operate with the Sisters of Mercy in the establishment and maintenance of this institution. Every city the size of Greensboro should certainly have a hospital and this move is in the right direction. The time is coming and it is not very far distant when the public as well as the medical profession will recognize the very great advantage of having their sick, especially the injured and surgical cases treated at hospitals.

Northwest Medicine.

This is the name of a new medical journal published at Seattle, Wash. The editors and publishers of this new medical journal deserve the congratulations, not only of their local profession, but the fraternity throughout the country for the excellent work displayed in this first number. It shows numerous evidences that the men at the back of it possess the peculiar knowledge necessary to make a medical journal a success. As they say in their editorial department, there is abundant reason for publishing local medical journals. They fulfill a need that a large weekly published in a large city among the few medical centers cannot fill. They are the means of uniting the members of the profession locally. Many physicians will contribute articles to a local journal that would not to a large weekly.

Therapeutic Memento.

A few years ago Prof. Armand Gautier called the attention of the medical profession to the results which might be obtained "in repairing organic losses" by employing any substance in which "phosphorus could be found in a state similar to that in which we find it in Lecithine."

The lecithines are known to be organic phosphorus compositions which are found in animal and vegetable tissues, they are also known to exist in a natural state in the blood, in the nerve substance, in the yolk of egg, sperm, fish milt, etc.

Lecithine which has recently been introduced into therapeutics is extracted from the yolk of egg, and is composed of stearic lecithine.

The experiments of Desgrez and Ali Zaky, of Gilbert and Fourneir, of Lancereaux and others, have thoroughly proven that the administration of lecithine brings about a notable improvement in the appetite, and an increase of weight, as well as an augmentation of strength and a general improvement in the patient's condition.

Lecithine should then be classed among medicines which produce the most favorable effect on nutrition; conseqnently this medicine becomes useful in a wide range of cases and in all those pathological states in which organic losses take place, such as general debility, rachitis, tuberculosis, diabetes, phosphaturia, and neurasthenia.

Lecithine may be prescribed in three distinct forms: 1st, Pills Clin, containing natural lecithine, chemically pure (2 to 5 pills per day), 2nd, Granulated Clin, which is of very easy administration and possesses an agreeable taste, making it very convenient to give children (1 to 2 teaspoonfuls for children and 2 to 5 for adults). 3rd, Solution clin, for intra-muscular injections (1 injection ever other day).

These various preparations are of an absolute purity and possess a perfect stability, being compounded with scrupulous care, they provide the physician with an efficacious remedy which enables him to obtain uniformly favorable results. It is a matter of congratulation that therapy has made this new acquision.

E. Fougera & Co., Agents,
New York.

WANTED!—A Resident Physician for a southern Summer Resort. Address with full particulars, Springs, P. O. Box 1592, Philadelphia, Pa.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Report of a Case of Fibromyoma of the Round Ligament.

Dr. Melvin M. Franklin reported a case of fibromyoma as the round ligament occurring in a patient twenty-nine years of age.

The tumor which was about the size of a walnut was situated in the inguinal canal just without the internal abdominal ring. Pressure on the growth caused considerable pain and nausea.

The tenderness was markedly increased during menstruation. The periods had always been normal and she suffered with dysmenorrhea.

On operation it was found to be a hard fibrous tumor of the round ligament. This was excised and the canal properly closed.

The Pathological findings proved it to be a fibroluomyoma of the round ligament.

Dr. John C. DaCosta: I do not remember having had any case of fibromyoma of the round ligament. I have had two cases of pure fibroma of the broad ligament, one of which was, I believe, the largest ever reported. It did not spring from the round ligament, but from the shiny muscular fibres at the bottom of the pelvis.

Dr. Krusen: It seems to me that Dr. Franklin has presented for us one of the rarer forms of neoplasm which may attack the genital organs. It is interesting both from a diagnostic and pathologic standpoint. It is interesting from a diagnostic standpoint because it may be mistaken for lipoma, ovarian or intestinal hernia or enlarged lymph glands. I have operated upon two cases of fatty tumors which were rather difficult to diagnosticate because they were in this situation. Another point in diagnosis is the occurrence of the omental hernia coming down and being mistaken for the fibromyoma at this point.

From the pathologic standpoint the subject is interesting in regard to the varieties of tumors that may affect the round ligament and also in regard to the size of some tumors that may originate from a small amount of muscular tissue. Cullen in 1896 in the Johns Hopkins Bulletin Vol. 7, page 112, reports an adenomyoma, in a woman 37 years of age. The tumor has been growing for eight years. Two years previous to the time of operation the tumor had grown rapidly. An incision was made over the growth and it was removed and when dissected it was found $3\frac{1}{2}$ cm. long and 3 cm. wide. Microscopical examination through the tumor showed areas of rather translucent character. There was a mucous membrane similar to the normal uterine mucous. Such findings may, I think, throw some light upon the origin of the growths. Leopold has reported a case of lymphangeiectatic myoma; Sanger a case of sarcoma of the round ligament. Another interesting point is that during pregnancy, these tumors often increase in size and also during menstauation. This probably indicates their relation to the uterus. The most frequent situation is upon the right side. As an illustration of how a small muscular fibre may give rise to a large growth, Doran reported a sixteen pound tumor arising from the tiny ovarian ligament. This shows how in the mere presence of fibrous tissue large growths may proliferate.

Dr. Maier: I would like to ask Dr. Krusen whether the tumors he has just mentioned were situated in the round ligament as it came through the inguinal canal, or in the broad ligament?

Dr. Krusen: They were all round ligament tumors external to the ring.

Dr. E. E. Montgomery: I have been greatly interested in hearing Dr. Franklin's paper and feel that the Society is indebted to him for the presentation of so rare a case. Judging from my own experience I should say the tumors of the round ligament are very rare. I have never seen one, but recognize the fact that my experience has not been sufficiently large to afford evidence that such growths do not occur. We can readily realize that in the round ligament, which contains both muscular structure and blood vessels, there is ample material for the development of this class of tumors, whether we assign their origin to the muscular structure of the round ligament itself or to the muscular wall of the blood vessels. Their infrequency in the round ligament is readily explained by the fact that the structure is rarely subject to injury. The point of diagnosis is one of very great interest. I can readily see how such a growth could be mistaken for conditions such as were supposed in this individual case. In listening to the paper I at first thought the condition had followed an operation upon the round ligament, as the Doctor said the ligament was shortened, but this was evidently due to the growth taking up the slack of toe ligament.

Dr. John M. Fisher: Dr. Clark, I believe, a few years ago reported a case of coincident sarcoma of the uterus with fibromyoma of the round ligament, demonstrating the importance of making a microscopical examination. The case was either one of fibaomyoma of the uterus and fibromyoma of the round ligament. I think the latter was the condition. It is an interesting point I think to note in this particular case.

Operation for an Abdominal Pregnancy of Twenty-One Months' Standing.

Dr. C. P. Noble reported the clinical history of this patient who was a multipara, 30 years of age. She missed her menstrual period in March, 1901, two weeks later she was taken with a sharp, agonizing pain in the right iliac region, diagnosed by her physician as appendicitis, and was in bed for three weeks, two months subsequent to the date of expected labor, she consulted a gynecological dispensary where a diagnosis of "tumor" was made, and medicine given "to dissolve it." She remained under this treatment for three months. She was finally sent to the Kensington Hospital for women, Philadelphia, with a diagnosis of fibroid. Dr. Noble made a presumptive diagnosis of abdominal pregnancy and varified the diagnosis by an abdominal section. The fetus occupied the left side of the abdomen extending into the pelvis, the uterus was pushed to the right and elevated. The round ligament and tube ran over the face of the "tumor." The sac was so thick that it was impossible to outline the fetal parts. The ovarian and uterine vessels on the involved side were ligated, the fetus and sac elevated out of the pelvis and the lower end of the mass turned upward. By getting at the mesentery vessels from below and behind it was possible to control the bleeding without difficulty. The uterus was not removed. The patient made a satisfactory recovery.

Discussion Dr. Noble's Paper.

Dr. E. E. Montgomery: The case presented by Dr. Noble is one of very great interest from a diagnostic standpoint. Everyone who has had an opportunity of observing a large number of patients appreciate the frequency of cases which will come under his observation where it is difficult to determine whether he has to deal with a pregnancy, fibroid tumor or other abdominal growths. I remember a case which came under my observation years ago at Jefferson Hospital of a woman who had gone fifteen months from the time she conceived without delivery. Two months subsequent to her conception she had what she supposed to be an abortion. There was a discharge of clots of blood and she suffered great pain. A bloody discharge continued for some weeks subsequently. A few months later she recognized fetal life and again became reconciled to the fact that she was pregnant. At the completion of what should have been the normal period of gestation, however, labor did not occur. At the time the patient came under our observation she presented a tumor which filled the abdomen to nearly the size of a woman at full term of pregnancy. Examination revealed fluctuation while percussion over the tumor gave resonance. On examination per vaginam the uterus could be recognized situated in front and somewhat to the left of the mass. While a portion of the tumor felt solid, one was unable to palpate and recognize distinctly its parts. The history of the case and the conditions present led me to form the diagnosis of ectopic gestation, in which the fetus had undergone maceration and decomposition, and the resonance in the sac was the result of the gas thus formed. Upon opening the abdomen we found a condition similar to that which I had expected. The uterus was in front of the mass, the tumor occupied the abdomen above and the wall of this tumor was made up of a membraneous sac to which the placenta was attached at the upper part. The placenta was without vitality, was easily pulled off with the portion of the sac to which it was attached and without hemorrhage. The entire lining membrane of the sac was covered with macerated material. With the removal of the fetus, the sac was thoroughly cleansed, stitched to the abdominal walls and packed with iodoform gauze. The intestines were closely adherent to it and formed a part of the sac wall, so it was impossible to attempt its removal. The convalescence was slow; patient finally recovered. The second case which comes to my mind is that of a wife of a physician in the upper part of the State. On examination a tumor was recognized to one side of the uterus which filled up the pelvis. The history and the examination of the case led me to unhesitatingly pronounce it a fibroid tumor. It had been in existence for two years. The patient was unwilling to submit to operation, became pregnant and gave birth to a child without interference to the sac, and so far as I know, she still carries it. Another patient treated at the Jefferson Hospital is of diagnostic interest. She had a mass which had been pronounced pregnancy by several physicians. One physician, an eminent gynecologist in the city, pronounced this a pregnancy and saw the patient several times during the supposed gestation. The woman, however, did not attain to the size she supposed to be proper and the time passed beyond which labor should occur. She was brought to the hospital and even then the growth was considered a delayed pregnancy. There was found situated in the vagina a mass the size of a fetal head, so divided as to lead to the belief that the fontanelles could be felt between the masses. On examination over the abdomen a mass could be pushed away and felt to rebound against the hand. This

was supposed to be the body of the fetus. In examining this patient, however, I felt satisfied from the surfaces intervening between the vaginal mass and the finger that it could not be within the uterus. If it was a fetus it was evidently situated anterior to that organ. I hardly believed that we would likely find an ectopic gestation in that situation. The sensation of free movement of the upper part was due to the fact that the tumor was connected with the fundus of the uterus by a rather thick yet flexible pedicle which permitted the fundus to be pushed away and to return against the hand. The latter was favored by a considerable amount of ascites. As soon as the abdomen was opened a considerable quantity of fluid was discharged and the mass projected into the wound. A number of fibroid tumors occupied the body of the uterus. I think these cases indicate the difficulty in diagnosis which will sometimes lead the patient to go for some length of time under the observation of careful men and they be mistaken for other conditions.

Dr. Krusen: Dr. Noble's interesting case recalls a post-mortem which I had in 1893, while a resident at Jefferson Hospital. I had the opportunity through the courtesy of Dr. Hearn of making a post-mortem in the case of a patient in the northern part of this city. The abdomen had been gradually increasing in size for ten months and no menstruation had been present for that time. The patient had been seen before in consultation by the late Professor Parvin and the condition was such that operation was thought inadvisable. The patient died and upon post-mortem there was found with the abdominal cavity a full-sized fœtus larger than the size of a baby a month old. A hæmatoma occupied the position of the uterus. The head of the fœtus was directly under the spleen. The case illustrates the tolerance of the peritoneum to the development of the fœtus. This was a case in which undoubtedly rupture had occurred. The hemorrhage had not been such as to produce death, and the fœtus had gone on to full development, weighing over ten pounds. The specimen is now in the museum of the Jefferson Hospital.

The very interesting and perplexing question to the surgeon is the treatment of the live placenta in cases of ectopic gestation I have had an opportunity in two cases of having to contend with this difficulty. I think Dr. Noble is to be congratulated upon his success in this case.

Dr. C. C. Norris: I think the specimen is a very interesting one indeed. I have never seen one so large. While a resident in Baltimore I saw one specimen somewhat smaller which had been in the abdomen for nine or ten years.

Dr. Noble closes: I have very little to say. The point raised by Dr. Krusen is of course the crucial one, how to deal with the hemorrhage. These cases are so rare that there are very few of us who have the opportunity to acquire views from practice. This is the first full term pregnancy of this kind that I have ever seen. I have operated upon nearly a hundred cases of ectopic pregnancy, but this is the first one advanced beyond the fourth month.

I think it is best to enucleate the whole sac provided one can do preliminary ligation. If the placenta is attached to the intestines we know that we cannot do preliminary ligation. On the other hand if the placenta is in the pelvis we know perfectly well how to deal with the ovarian and uterine arteries or with the anterior branch of the internal iliac. I should prefer to enucleate the sac under those circumstances. In a case having its blood supply from the mesenteric vessels my own action would be to pack the sac with gauze and leave it.

Common Sense Tonic Medication, with Illustrative Cases.*

Every physician of experience has many times felt the need of a satisfactory method of treatment for the exceedingly common class of cases attended with impoverishment of blood, exhaustion of nervous force and the constitutional condition designated malnutrition. Any or all of these conditions may exist independent, may co-exist, or may be part of organic diseases of the respiratory, nervous or digestive systems. It can be safely stated that the ordinarily employed tonics and reconstructives, iron, arsenic, strychnine, cod liver oil, etc., fail in the majority of cases to effect the desired results. It is soon apparent that these remedies are not absorbed, or if they do enter the system, fail to bring about the desired changes in the blood, the nervous system and general nutrition. Reasoning *a priori* it seems that the most rational and scientific method of treating these cases is by fostering the patient's nutritive functions; and this can only be accomplished by directing treatment first to restoring the enfeebled digestive organs, so that food, the natural reconstructive and tissue builder will be digested and assimilated. This may be said to be the first and most striking indication for treatment, inasmuch as there are always present the symptoms of atonic dyspepsia with loss of appetite, and an absolute inability on the part of the patient

* A. W. Duvall, M. D., Philadelphia, Pa.

JUST NOW

when the debilitated and poorly nourished are subject to coughs and colds, the remedy of most value is

GRAY'S Glycerine TONIC Comp.

Its specific action on the respiratory organs is second only to its unique value in malnutrition and general debility

THE PURDUE FREDERICK CO.
No. 15 Murray Street, New York

PRUNIER'S

HYPERPHOSPHINE

REGISTERED

$(C_3\ H_7\ CaPhO_6,\ 2H_2\ O)$

Pure Phosphoglycerate of Lime

Prepared according to the original process of MM. Portes and Prunier.

INDICATIONS.—In all cases of weakness by Anæmia, Neurasthenia, Headache, Neuralgia, Nervous Cough, General Debility.

HYPERPHOSPHINE *is non-toxic.*

HYPERPHOSPHINE *is supplied in three forms:* ***Granulated, Syrup,*** *and* ***Wafer-Cachets***

When prescribing, specify which of the above is wanted.

E. FOUGERA & CO., Sole Agents, New York

to take sufficient nourishment to replace the increased waste of tissue brought about by the disease processes. Most so-called tonic-nutrients and reconstructives have little or no influence upon these most important functions. Iron is administered in anaemia because that element is known to be deficient in the blood; the fact that the deficiency of iron and impoverishment of the blood is but a part of a clinical condition, of which general tissue impoverishment—malnutrion—is the essential and underlying feature, seems to be disregarded. Cod liver oil, according to both scientific investigations and practical experience, is of utility only as a food fat; aside from this its therapeutic, i. e., remedial value, is practically nil. Strychnine is a stimulant to the nervous system, and, according to Professor Hobart A. Hare and numerous other authorities is positively contraindicated in most conditions which are regarded as requiring tonic medication. What is most needed is an "all-around" tonic, which attacks the pathologic conditions upon the rational scientific basis of restoring tone to the general system—blood, nerves, organs, nutrition, by an imitation of nature's methods of restoring waste of tissue and impoverishment of nervous force, i. e., by coaxing the abrogated digestive and assimilative functions—and thereby the general nutrition—to resume normal physiologic activity. This is all the more imperative when one considers that the various pathologic conditions associated with organic diseases and impoverishment of blood and vitality, have the one essential feature in common, i. e., malnutrition. The correctness of this reasoning is amply proven by an extensive experience in treating a large number of cases of exactly the kind which every physician regards as requiring tonic treatment. The following cases are selected at random from a large number of similar ones, and are cited merely to illustrate the foregoing remarks upon what constitutes both rational and scientific tonic medication. The remedy selected was a mixture of gentian, taraxacum, dilute phosphoric acid, glycerine, with a small amount of sherry wine and carminatives (furnished under the name of Gray's Glycerine Tonic Comp.) all of which ingredients, have a well known and universally acknowledged tonic influence upon the digestive and assimilative functions. Particular attention is directed to the diverse character of the cases, the diagnosis in each of which was perfectly clear.

Case I.—Female, seventeen years of age; mill operator; had gradually lost flesh and strength for a period extending over about seven months. At the time of beginning treatment she presented the picture of typical chlorosis. Her skin was a waxy green, her conjunctivæ of sky-blue color, and she was emaciated to a marked degree. Menses had not been present for four months. The hæmoglobinometer on three separate examinations during a period of ten days showed remarkable corpuscular impoverishment—an average of 42 per cent. The subjective symptoms of muscular weakness, with mental lethargy, were most pronounced. She had been unable to take food, except of fluid character, and in very small quantities, for several weeks. Appetite was totally absent, and milk and broths, even in moderate amounts, occasioned gastric distress and were frequently vomited. She had at times paroxysms of pain resembling gastralgia. Constipation was a marked feature. Physical examination of the thorax revealed loud, systolic, blowing murmurs—hæmic—over the entire precordia, most pronounced at the base of the heart and in the carotids. There was prescribed in addition to rest, frequent bathing, peptonized milk and Blaud's mass in ascending doses. Two weeks' treatment by these measures failed either to increase the proportion of hæmoglobin or relieve the general weakness and marked disturbances of the gastric functions. She was then placed on Gray's Glycerine Tonic Compound, two drachms four times daily, and the iron was discontinued. At the expiration of seven days she had desire for food, which was apparently digested and assimilated. She was given fluid extract of cascara sagrada in fifteen-drop doses at bedtime, in order to overcome constipation. Her appetite gradually returned; she was able after two weeks to take lighter articles of diet—eggs, toast, scraped raw meat—and she had consequently gained strength. Treatment by rest, bathing and the administration of Gray's Glycerine Tonic Comp. was continued for eight weeks, at which time she had gained fourteen pounds in weight, was entirely free from gastralgia and the symptoms of atonic dyspepsia, and her hæmoglobin had increased to 82 per cent. She has had slight menstrual show, and she is now so *far* convalesced that she is able to indulge in a fair amount of mental and physical exertion without experiencing undue fatigue.

Cases II., III. were patients of the clinical character usually designated general debility in which, in addition to disorders of metabolism—manifested by loss of energy and body weight—there were particular enfeeblement of the digestive functions amounting to well-marked cases of atonic dyspepsia. Two of these cases had been under various tonic treatments for

Interesting Definitions

Creosote: A remedy which experience early demonstrated was highly beneficial in bronchial and pulmonary troubles.

Guaiacol: That constituent of creosote to which the beneficial action is due.

Thiocol Roche: A perfected form of Guaiacol that is non-irritant, very assimilable and that shows prompt, beneficial results in PHTHISIS, PNEUMONIA, COUGHS, CATARRHS and SCROFULA.

THERE ARE THREE FORMS OF THIOCOL ROCHE

THIOCOL ROCHE POWDER: dose, 5 to 20 grn. three times a day.

THIOCOL ROCHE TABLETS (5 grn.): 1 to 4 tablets thrice daily.

SIROLIN (Syr. Thiocol Roche containing 6 grn. in teaspoonful): 1 to 3 teaspoonfuls three times a day.

BEECH
(Fagus Sylvatica L.)
Source of Creosote, Guaiacol and Thiocol Roche

"Thiocol is a derivative of guaiacol and sirolin is its syrup preparation. It possesses the properties of guaiacol without its disagreeable by-effects. ** Clinical experience is demonstrating its great value."—Abstract in *Jour. Amer. Med. Assoc.* Sept. 20, 1902, p. 731.

"No other medicament produces such striking results."—PROF. MARAMALDI, *Gazz. Internaz. di Med. Prat.*, No. 8, 1899.

In severe WINTER COUGH it has relieved the expectoration, soothed the cough and assisted the appetite."—DR. J. MOIR, *Therapist*, Apr. 16, 1900.

DESCRIPTIVE MATTER AND CLINICAL REPORTS ON REQUEST

MERCK & CO. University Place NEW YORK

periods varying from two to four months. In accordance with Allbutt's dictum, concerning cases of neurasthenia and pseudo-neurasthenia, that the "stomach is the link in the viscious circle which has to be forged anew" ("System of Medicine," Vol. II.), these patients were placed on Gray's Glycerine Tonic Comp., the announced ingredients of which are well-known stomachics and restoratives of gastric functions. The detail in brief are as follows:

Case II.—Male, twenty-nine years of age; bookkeeper; of spare build; had been closely confined to business. He had gradually lost flesh and strength for several months past, was particularly conscious of almost complete failure of appetite and suffered considerably from a frontal headache, which was subject to exacerbations of a neuralgic character. Eye strain was detected and corrected by a skilled oculist, but the headache persisted. Repeated physical examinations failed to reveal any organic disease except marked functional digestive disorders. Anorexia, distress after eating, indisposition to mental and physical exertion, epigastric tenderness and constipation were all present. The patient was first ordered comparative rest, a graduated diet and was placed on two-drachm doses, t. i. d., of elixir of iron, quinine and strychnine. He failed, however, to improve under this treatment and was placed on Gray's Glycerine Compound, tablespoonful in water, one hour before each meal time. He was ordered in addition an aperient draught at night. Within ten days his improvement was apparent to all his associates. With a marked increase in appetite there was a corresponding ability to digest food and the patient experienced a feeling of general improvement. At the end of one month's treatment he was discharged practically free from all subjective symptoms.

Case III.—Female; twenty-four years of age; housewife, with exacting duties; had gradually lost flesh, strength and ability to take and digest food. She was nervous to a marked degree, had characteristic symptoms of atonic dyspepsia, was unable to sleep and presented a typical picture of nervous exhaustion. Oxaluria was present. She was ordered rest, freedom from household duties, light diet and Gray's Glycerine Comp., half-ounce three times daily before meals.

The first change noted was an improvement in appetite and the ability to sleep. A modified "rest cure," with Gray's Glycerine Tonic Compound, was continued seven weeks, at the end of which time all the symptoms of atonicity of the digestive functions had disappeared, her appetite was better than it had ever been, she was able to assimilate food, rested well at night, and was able to resume the care of her house.

Case IV.—J. S. F., Male æt. 36. Family history: Mother and one brother died of pulmonary tuberculosis. Personal history good. Had not been sick in sixteen years; then had an attack of malaria. Present illness November 27, 1900. Severe chill, pulse 106; temperature, 102; respiration, 36. Great prostration and dry cough. For four days temperature 102 to 104, then gradually declined until on the tenth day it was 100. Pulse ranged from 106–120, and then fell to 96. Other symptoms, as cough, expectoration, etc., characteristic of croupous pneumonia. But one point of importance is that there remained, after five weeks, a dullness in the apex of left lung, which would not clear up. Examination of sputum showed the pneumococcus in decreasing numbers after two weeks, and in the fifth week were found tubercle bacilli. Patient had taken cod liver oil in conjunction with the usual remedies in the treatment of pneumonia; but he did not gain in strength. Gray's Glycerine Tonic was then administered. There was an immedsate improvement in appetite, the patient began to eat and digest food in adequate quantities, coughed less, increased in flesh, strength and general nutrition. Dullness in left apex is practically gone, and sputum examinations show freedom from tubercle bacilli.

This case is doubly interesting. It illustrates not only the efficacy of the treatment practiced, but shows most forcibly that proper treatment in the early stages of pulmonary tuberculosis will frequently eradicate the disease; this latter fact is emphasized by all medical authorities.

Case V.—Baby, seven months; bottle-fed. Diagnosis: Bronchitis and malnutrition. Treatment: One-half teaspoonful Gray's Glycerine Tonic Compound, clear, every hour. Saw two weeks later. Results: Bronchitis cured. Gain in weight 4½ pounds. General condition improved. Treatment continued for four weeks resulted in overcoming existing malnutrition.

Case VI.—Man, twenty-eight: mechanic. Diagnosis: Pulmonaty tuberculosis, with poor appetite. General condition very bad. Treatment: One teaspoonful Gray's Glycerine Tonic Compound every two hours. Ten days later: Cough diminished; appetite improved; eats with relish. Fever much less. Treatment continued for six weeks, with the result that the night sweats were abolished and patient's nutrition is very much improved. Treatment continued.

Case VII.—Man, forty-one; works on street railroad. Complains of loss of ap-

LISTERINE

The standard antiseptic for both internal and external use.

Non-Toxic, Non-Irritant, Non-Escharotic—Absolutely Safe, Agreeable and Convenient.

LISTERINE is taken as the standard of antiseptic preparations.

The imitators all say, "It is something like LISTERINE."

BECAUSE of its intrinsic antiseptic value and unvariable uniformity, LISTERINE may be relied upon to make and maintain surgically clean—aseptic—all living tissues.

IT IS AN EXCELLENT and very effective means of conveying to the innermost recesses and folds of the mucous membranes, that mild and efficient mineral antiseptic, boracic acid, which it holds in perfect solution; and whilst there is no possibility of poisonous effect through the absorption of LISTERINE, its power to neutralize the products of putrefaction (thus preventing septic absorption) has been most satisfactorily determined.

A special pamphlet on catarrhal disorders may be had on application.

For diseases of the uric acid diathesis:

LAMBERT'S LITHIATED HYDRANGEA

A remedy of acknowledged value in the treatment of all diseases of the urinary system and of especial utility in the train of evil effects arising from a uric acid diathesis. A pamphlet of "Clippings" of editorials on this subject may be had by addressing:

LAMBERT PHARMACAL COMPANY, - - ST. LOUIS.

Be assured of getting Listerine by purchasing an original package.

petite, bad cough, sweats at night badly. General condition fairly good. Diagnosis: Phthisis as result of la grippe last Winter. Treatment: A teaspoonful Gray's Glercerine Compound. Results, two weeks later: Cough not so frequent or severe; expectorates easier; appetite increased. Treatment continued with progressive improvement.

Case VIII.—Housewife; twenty-eight. Her condition, as expressed by herself was: "Cannot eat," and "have no milk for baby." General condition poor; extremely nervous. Diagnosis: Anæmia and malnutrition following childbirth three months ago. Treatment: Gray's Glycerine Tonic Compound; dessertspoonful in water before meals. A week later: Nervousness less. Appetite improved. Looked better. Treatment continued. Improvement quickly noticeable and commented on by all her friends. Second week: Bowels seemed to be regulated by the general improvement. No heartburn; has not vomited but once in two weeks. Color much better; skin clear. Her milk secretion was materially increased, and the nourishing character of her milk was manifested by a rapid improvement in the nutrition of the baby.

Case IX.—Aet. 35, wife of a physician. Anæmia, general debility and malnutrition of long duration. In spite of the varied and judicious employment of iron in various organic and inorganic combinations as well as arsenic, strychnine and cod liver oil, the symptoms continued. The various proprietary forms of organic iron were tried without material benefit. The intense degree of the anæmia will be better appreciated by a report of the examination of the blood, which revealed: red blood corpuscles, 2,900,500; Hæmoglobin, 45 per cent. Treatment by iron (all forms), arsenic and strychnine was continued for *six months*, with only an increase of 3 per cent. in the hæmoglobin. Gray's Tonic was then administered. In four days the hæmoglobin increased 4 per cent., there was for the first time a desire on the part of the patient for food, and within two weeks the patient was not only taking nourishment in sufficient quantities, but digestion was apparently normal, sleep was natural and undisturbed and there was a progressive increase in flesh and strength. After two months' treatment, which consisted of Gray's Tonic alone, the red blood corpuscles were increased to 4,400,000 and the hæmoglobin to 62 per cent. It will be noted that the blood counts at the beginning of treatment showed 2,900,500 red blood corpuscles, and only 45 per cent. hæmoglobin. With this blood enrichment, there was such general improvement that the patient may be said to have practically recovered. This case, which was seen in consultation by one of our best known consultants, illustrates most forcibly the inadequacy of iron in certain severe forms of anæmia.

For purposes of brevity further detailed cases—which are many and varied—are not herewith reported. The above mentioned cases suffice to illustrate the statement made that if the treatment of the various forms of anæmia, nervous exhaustion and malnutrition—existing either independently or as a part of constitutional or organic diseases—are to be satisfactorily treated and prompt results expected, the old time so-called tonics, of which iron, arsenic, strychnine, cod liver oil, etc., are representatives, must be supplanted by measures which are not only rational and scientific, but which have the approval of extensive and critical clinical experience. Gray's Tonic is an example of this principle; it is a reliable tonic, reconstructive and nutrient in the truest and fullest sense of these terms. The remedy in question was obtained from the Purdue Frederick Co., 15 Murray street, New York.

Action of Dionin.

Drs. Combemale and Sonneville have made careful observations on six subjects, and found that dionin (ethylmorphine hydrochlorate) has quite some analgesic power; it is weaker in this respect than morphine, but it has a marked favorable effect on the respiratory system. The authors have observed accessory effects but once; they consisted of loss of appetite, and cerebral depression and dullness. The use of dionin does not lead to habit formation. The dose given by Drs. C. and S. was 0.03 Gm. ($\frac{1}{2}$ grn.) per day in all their patients, and repeated from eight to fifteen days. The remedy throughout was discontinued suddenly, yet not the slightest untoward symptom was noticeable; the patients did not experience any want for the drug, and there was no necessity of increasing the dose before eight or ten days of its use.—Echo. med. du Nord., 1902, Nov. 2.

Notice-- SANDER & SON EUCALYPTOL is invaluable in inflammation of the mucous membranes, and in all septic and infectious diseases. Apply to Dr. SANDER, 88 Lincoln Avenue Chicago, Ill. for sample and literature of Sander's Eucalyptols Meyer Bro.'s Drug Company, St. Louis, Mo., Sole Agents.

In CARDIAC and GENERAL MUSCULAR RELAXATION,
due to Functional Cardiac and Circulatory Disturbances,

CACTINA PILLETS

Has Many Advantages Over Other Heart Stimulants.

IT HAS NO CUMULATIVE ACTION, AND IS ABSOLUTELY SAFE AND RELIABLE.

Each pillet represents one one-hundredth of a grain CACTINA, the active proximate principle of CEREUS GRANDIFLORA.

DOSE: One to four pillets three times a day.

Samples mailed to physicians only.

THE CHIEF CHARACTERISTICS OF THE PHYSIOLOGICAL ACTION OF

SENG

Is to promote Normal Digestion by encouraging the flow of Digestive Fluids.
It is the Modern and Most Successful Treatment for
INDIGESTION.

A PALATABLE PREPARATION OF PANAX SCHINSENG IN AN AROMATIC ESSENCE. | *DOSE: One to two teaspoonfuls three times a day.*

A full size bottle, for trial, to physicians who will pay express charges.

SULTAN DRUG COMPANY, St. Louis, Mo., U. S. A.

Samples and Literature supplied by

BAYER — PHARMACEUTICAL PRODUCTS — 64 Stone St. — New York. — FARBENFABRIKEN vorm. FRIEDR. BAYER & CO. ELBERFELD

AGURIN
The Non-Irritating Diuretic.

EPICARIN
The Non-Toxic Dermal Parasiticide.

SALOQUININE
The Tasteless and Improved Quinine.

HEDONAL
The Promoter of Natural Sleep.

FERRO-SOMATOSE
The Ferruginous Nutrient and Tonic.

PROTARGOL
Antigonorrheal, Antiseptic

ASPIRIN
The Best Salicylate

Some Uses of Iodipin.

Dr. Ed. Honigschmied reports his experience with iodipin (iodized sesame oil) in impetigo, chronic eczema, neuralgias, scrofulous affections of the eyes and nose and emphysema. As is known, impetigo facies, when improperly treated, is characterized by its long duration, the intolerable itching, and disfigurement of the patient for the time being. The author states that since using iodipin this disease belongs to those he cures quickly. A few cases are described in detail, to illustrate the effects of the remedy. In a severe case occurring in a child of 4 months, a small teaspoonful of iodipin 10 per cent. given once daily produced marked improvement in a week and complete cure within a month. In all the cases of impetigo, from 100 to 250 Gm. ($3\frac{1}{2}$ to $8\frac{1}{2}$ oz.) of iodipin sufficed for a cure.

In a case of scrofulous inflammation of the eyes and nose—the sclerotica of both eyes forming a vascular wall around the cornea (the latter cloudy), photophobia and lachrymation, the nose immensely swollen and discharging a sanguino-purulent secretion, and the cervical glands enlarged—30 injections of iodipin 25 per cent., each 15 Gm. ($\frac{1}{2}$ oz.) effected recovery. There was no pain during or after the injections. However, some months later, a recurrence of the symptoms took place, but 250 Gm. ($8\frac{1}{2}$ oz.) of iodipin 10 per cent. permanently dispelled them.

In chronic eczema, 250 Gm. ($8\frac{1}{2}$ oz.) of iodipin 10 per cent. given in tablespoonful doses daily, with suitable local treatment, effected a lasting cure.

Trigeminal and intercostal neuralgias quickly yielded to injections of 15 Gm. ($\frac{1}{2}$ oz.) of iodipin 25 per cent. made over the course of the affected nerve. In the intercostal neuralgias often a single injection sufficed to remove the trouble after the lapse of a few days, when all other means had proved of no avail; before the action became manifest opiates were occasionally given to assauge the pain temporarily.

In sciatica iodipin never failed; within a week to a fortnight after the first injection (30 Gm. [1 oz.]) marked improvement set in; in some cases even complete cure. In the intervals between the injections (usually 3 days) frequently antifebrin and dionin were given for the relief of the pain.

Finally, a large number of cases of mild scrofulous affections—such as swollen glands of various forms, eye diseases, etc.—were regularly benefited by iodipin; and so was pulmonary emphysema.—Aerztl. Central.-Ztg., xiv, No. 36.

Saloquinine in Neuralgia.

Dr. A. B. Cook, of Chicago, after referring to the tastelessness of saloquinine (quinine salicylic ether) and its freedom from the untoward by-effects of quinine or of salicylic acid, relates in detail three typical cases treated with this new antineuralgic and antipyretic.

Case I complained of frequent attacks of neuralgia, chiefly facial and cervical. Quinine, though bringing some relief, produced cinchonism and gastro-intestinal disturbance; 15 grn. of saloquinine three times a day gave results surpassing any ever previously secured from quinine in this condition; besides greater efficiency than quinine as an antineuralgic, there was total absence of untoward effect, which was remarkable considering that salicylic acid and its salts are very liable to irritate the stomach.

Case II.—Sciatica. Constant pain, with severe exacerbations. Patient was kept quiet in bed with application of heat, lead and opium wash and a few hypodermics of morphine to control pain. Saloquinine was administered in 15-grn. doses every four hours, with very good results. The author believes that if the drug had been administered earlier the severity of the disease would have been reduced.

Case III was of nervous grippe; temperature of 104 deg. F., and all the usual symptoms. Patient was put to bed; cold baths resorted to for reducing fever, but little effect; acetanilid, antipyrine and phenactin were of some service, but not to the extent desired. At last saloquinine was given—10 to 15 grn. every hour. In a few hours its antineuralgic and antipyretic action was satisfactorily manifested; the patient sweated freely, the temperature dropped to normal, pulse still slightly above normal, but full and strong. Patient slept well, and made rapid uninterrupted recovery—Memphis Med. Monthly, No. 10, 1902.

Action of Thiocol in Phthisis.

Editor MERCK'S ARCHIVES:

In paroxysmal dyspnea of phthisis, and to relieve the diarrhea and sweats, thiocol is eminently satisfactory. Two great points in its favor are: Perfect freedom from causing derangement of the stomach, and the case with which it can be carried about. I am thoroughly convinced that any physician who will give thiocol a fair trial will have the same satisfactory results that I have had in 47 cases of phthisis. In this disease the administration of thiocol—a 5-grn. tablet 3 times daily—surpasses all other methods of treatment that I have tried during the thirty years I have been in practice.

D. WAGNER, M. D.

Springfield, Mass.

MAILED TO PHYSICIANS ON RECEIPT OF $ 1.00

RELIEVES CONGESTIONS, ENCOURAGES PERISTALSIS, REMOVES SPASMODIC CONDITIONS, REGULATES THE VASCULAR SUPPLY.

FOR ALL FUNCTIONAL UTERINE AND OVARIAN DISORDERS

SAMPLES AND LITERATURE ON APPLICATION MELLIER DRUG COMPANY, ST. LOUIS

SYRUPUS ROBORANS.

SYRUP HYPOPHOSPHITES COMP. WITH QUININE. STRYCHNINE AND MANGANESE.

1-128 grain Strychnine to teaspoonful.

The pharmaceutical skill displayed in making this favorite compound more stable and agreeable, deserves the approbation of the profession.

Syrupus Roborans as a Tonic during Convalescence has no Equal.

As a nerve stimulant and restorative in wasting and debilitating diseases, as a constructive agent in Insomnia, Pneumonia, Bronchial Asthma, Marasmus, Strumous Diseases and General Debility, this compound has no superior. Owing to the solubility of the salts, additions can be made of Fowler's solution, Syrup Iod. Iron, Iod Potass, etc., giving the advantages of these remedies without interfering with the stability of the preparation. SYRUPUS ROBORANS is in perfect solution, and will keep in any climate.

DR. T. H. STUCKY writes: "In a case of Tertiary Syphilis, very anemic, the Iodides were revolting to the stomach, being vomited when taken. Syrupus Roborans given three weeks with improvement, when the Iodides Potassium was retained with good results."

DR. W. O. ROBERTS says: "In cases convalescing from 'La Grippe Syrupus Roboran has no equa..

PETER'S PEPTIC ESSENCE COMP.

A POWERFUL DIGESTIVE FLUID IN PALATABLE FORM.

Please note that Essence and Elixir Pepsin contain only Pepsin, while in Peter's Peptic Essence we have all the digestive ferments. These are preserved in solutions with C. P. Glycerine in a manner retaining their full therapeutic value, which is exerted in and beyond the stomach.

It is a stomachic Tonic, and relieves Indigestion. Flatulency, and has the remarkable property of arresting vomiting during pregnancy. It is a remedy of great value in Gastralgia, Cholera Infantum and intestinal derangements, especially those of an inflammatory character. For nursing mothers and teething children it has no superior. Besides mere digestive properties, Pepsin and Pancreatine have powerful soothing and sedative effects, and are therefore indicated in all gastric and intestinal derangements, and especially in inflammatory conditions. It is perfectly miscible with any appropriate medium. In certain cases the addition of Tr. Nux Vomica gives much satisfaction. Please write for Peter's Peptic Essence and you will not be disappointed. These preparations are held strictly in the hands of the medical profession, never having been advertised as popular remedies, nor put up with wrappers and circulars expatiating on the use of the Hypophosphites or Digestive, thus educating the public in the use of these valuable compounds.

Samples Sent upon Application. Express Charges at your Expense.

For Sale by ARTHUR PETER & CO.

ll Wholesale Druggists. LOUISVILLE, KENTUCKY.

To the Editor:

Whenever there is an innovation, particularly if it has claims to novelty or originality, there always follows some sneering or caustic criticism which is usually half-veiled.

Ray's Direct Order Plan, which, boiled down, means selling Pharmaceuticals without the aid of travelers and giving the saving to physicians who buy direct, is entirely original. It, therefore, cannot escape criticism from the source feeling the effect of its progress most. This source is made up of physicians' supply houses, who, not being satisfied with charging the doctors exorbitant rates for drugs and instruments, also induce them to subscribe to the medical journals which they edit for the purpose of advertising themselves and unfavorably commenting upon others.

Editorial comment has been made in this class of medical literature that the plan of giving the physician the saving of traveling salemen expenses in surgical instruments, verges on non-ethics. Very carefully was the editorial worded so that the plan was not called unethical, but merely implied the slurring criticism that we were nearing the border-land of non-ethics.

If the pinnacle of medical ethics is reached by getting all you can from a doctor and giving him nothing in return, and scant courtesy, sometimes, too, then there is no danger of those who are now feeling the effect of Ray's Direct Order Plan, nearing the Gethsemane where ethics is non-existent. It is sufficient to say for our ethical policy that our method of doing business has the support of physicians in Detroit and other cities, who hold their ethics as dear if not dearer that their honor.

THE RAY CHEMICAL CO.

Dionin in Corneal Opacities.

Dr. F. R. v. Arlt has employed dionin (ethylmorphine hydrochlorate) in 20 cases of corneal opacity, and gives the details of five that were carefully observed throughout the treatment. He places 1-12 grn. on the conjunctiva of the lower eyelid and massages the eye, once or (rarely) twice a week. Pain is produced, which lasts for 2 to 5 minutes; and the lymphagogue action sets in often within a minute, is at its height in 15 to 20 minutes, and persists, gradually diminishing, for 4 to 12 hours. Violent, repeated sneezing has been observed in about 10 per cent. of the cases, mostly in adults; but it was without any untoward consequence. In cases where the application has to be left to the patient or a nurse, a 10 per cent. dionin ointment made with lanolin is prescribed, and a piece as large as a pea directed to be put into the eye and the part massaged gently. The eyes are never bandaged up; but children are forbidden to play with sand and to bring their hands or clothing into contact with the eyes.

The clinical histories given show the unsurpassed effect of dionin in clearing up corneal opacities, even though a long period of time is required (3 to 21 months) to improve vision considerably by 100 to several hundred per cent.—Woch. f. Ther. u. Hyg. d. Aug., vi, No. 11.

Dr. R. Bloch also reports excellent results from the use of dionin in corneal opacities. Besides the pure powder he uses at times a 5-per-cent. ointment. The applications are made daily for 4 or 5 days, then discontinued for 4 to 6 days (until the tolerance for the dionin has passed away). to be reinstituted as before; in the intervals he applies calomel, or 1-per-cent, ointment of yellow precipitate.—Heilkunde, vi. No. 11.

Urinary Infection and Formin.

Dr. S. O. Symes asserts that formin has a prompt and efficacious action in bacilluria. The best results are obtained in cases of cystitis following hypertrophy of the prostate. Here the urine as it leaves the kidneys is acid, and the walls of the bladder are not deeply invaded by bacteria. Cystitis consequent upon urethral stricture is also materially benefitted by the use of formin. In blennorrhagic cystitis the results are less good; the subjective symptoms are improved, but this amelioration ceases when the remedy is discontinued. The same applies to cystitis due to the bacillus coli, often seen in women. Finally, in pyelitis and pyelonephritis, where the tissues are deeply attacked, formin of course cannot be efficacious.—Nouv. Rem., xviii, No. 21.

Ichthyol in Corneal Affections.

Dr. Theodoboff has employed ichthyol in 2-per-cent. ointment with cocaine in 22 cases of circumscribed infiltration of the cornea and in 6 of corneal ulcer, and in a number of cases of trachoma, phlyctenæ, and blennorrhea. The drug exercised a very favorable action, which manifested itself in a rapid recession of the inflammatory symptoms, a speedy regression of the vascular development, and a restoration of the corneal tissue with scarcely a blemish. In the phlyctenæ the author used a double treatment, by means of ichthyol and of mercury; but it was always the ichthyol that gave the better results. Finally, Dr. T. promptly brought about a cure in several cases of keratitis where neither atropine nor yellow ointment or calomel had had any effect.—Rev. de Ther., lxix, No. 23.

JOHN G. SAXE

SAID:

"When a man is going down hill everything seems greased for the occasion."

TRUE

When you have case after case that positively hangs fire, and a little forethought would have suggested for Pneumonia and every type of Inflammation

ANTIPHLOGISTINE

Just notice that the practitioner prescribing Antiphlogistine firmly believes the old adage

"Laugh and the world laughs with you, weep and you weep alone."

The Denver Chemical Mfg. Co.

Branch:
London, Eng.

New York

Phospho-glycerate of Lime as a Nerve Tonic.

The phospho-glycerate of lime is a real tonic, not a mere temporary stimulant to the nervous structures, supplying the exhausted and enervated cells with phosphorus in exactly the same state in which it is naturally present in the human system. It is readily assimilable, and its administration never causes depression, even if continued for a long period. It stimulates the appetite, favors the assimilation of albuminoid substances, and of the phosphates in food, increases blood formation, improves metabolism and augments the excretion of nitrogen.

Of all the glycero-phosphates, which are stable neutral salts, the phospho-glycerate of lime is most suited for general therapeutic use, being a dry, white powder, more soluble at low than at high temperatures. It has a feebly alkaline taste, dissolves in 25 parts of cold water, and is insoluble in strong alcohol and in ether. In the dry state the pure salt can be kept for an unlimited time.

The physiologic action of phospho-glycerate of lime lies in the properties of glycero-phosphoric acid, which chemically is the glycerine ester of phosphoric acid with the formula $PO_4\ H_2$, $C_3\ H_5\ (OH)_2$. This acid and neurine form lecithin, while nucleinic acid is composed of quanin, pentose and a nucleine of glycero-phosphoric acid.

Glycero-phosphoric acid of lecithin is the basis of cell formation which is all important in the synthesis of proto-nucleins. It is abundant in brain and nerve tissue, egg yolks, blood and spermatozoa. Nucleinic acid, the principal component of pito-nucleins, is an organic phosphoric acid, built upon glycero-phosphoric acid.

Physiologic Action.

1. It accelerates metabolism generally, both as regards organic and inorganic substances.

2. It accelerates chiefly the nitrogenous exchanges and favors the assimilation of albuminoid substances increasing the excretion of nitrogen.

3. It does not greatly influence the formation of uric acid, but the increase in the nitrogenous elimination often lowers the proportion of uric acid to urea.

4. It acts on the sulphur metabolism, increasing the oxidation of the broken-up sulphur products.

5. It has no marked effect on intestinal fermentations.

6. It increases elimination of chloride of sodium, and hence this corresponds with the clinical fact of improved appetite.

7. It favors the assimilation of the phosphates in the food by the nervous system, exerting an economic action by saving up combined phosphorus.

8. It increases the exchange of osseous substance without materially influencing those of phosphorus.

The value of phospho-glycerate of lime was first brought before the notice of the French Academy of Medicine (April 29th, 1894) by Dr. A. Robin, who had been experimenting since 1888. His object was an attempt to influence the nutrition of the nervous structures of the body in a certain definite direction.

He was led to study its therapeutic value from the fact that in the course of his researches on neurasthenia, he found that certain patients excreted in their urine quite considerable quantities of incompletely oxidized phosphorus. And since the other nutritive conditions remained normal, he considered that this phosphorus must originate from a retrograde metamorphosis of the neuro-lecithin. For, as is well known, most of the imperfectly oxidized phosphorus appears as phosphoric acid; and phosphoric acid is an essential component of lecithin which plays so important a part in the structure of the nervous system.

From his experience he concludes that this salt can be usefully employed whenever it is desired to increase the nutrition of the nervous structures and stimulate their activity.

Dr. Robin has used it with success in convalescence from influenza and other infectious diseases, in asthenic nervous maladies of various origins, in that form of neurasthenia that is characterized by the extremely rapid escape from the body of incompletely oxidized phosphorus, in cases of chlorosis when the carbonic oxidation was much decreased, in phosphatic albuminuria and in phosphaturia.

Dr. P. Pasqualis shows that phospho-glyceric acid passes into the blood as such, and is excreted with the urine as phosphoric acid.

Dr. K. Buelow states that the calcium salt is very readily digested, promptly passes into the circulation, and appears in the urine as phosphate.

J. L. Hatch, M. D.

20 November, 1902, New York City.

New Orleans Polyclinic.—Sixteenth annual session opens November 2, 1902, and closes May 30, 1903. Physicians will find the Polyclinic an excellent means for posting themselves upon modern progress in all branches of medicine and surgery. The specialties are fully taught, including laboratory work. For further information address New Orleans Polyclinic, Postoffice Box 797, New Orleans, La.

ALL ADMIT

that RESINOL OINTMENT is the best local application for Eczema and kindred skin diseases, and as a dressing for burns and other traumatic inflammations it is simply superb. The itching and burning of Pruritus Ani, Pruritus Vulvae, Proctitis, Itching and Inflamed Piles, Marginal Eczemas and Fissures, yield to its soothing influence as if by magic.

Water does not irritate if RESINOL SOAP is used. There is nothing just as good, and beware of the dealer who says so. Resinol Soap cures Dandruff, is fine for the hair, and keeps the skin healthy.

I am using Resinol Soap and Ointment and like them.
WM. ROBINSON, M. D., Chicago, Ill.

Resinol is the best antipruritic I have ever used.
A. VAN DER VELPEN, M. D., Detroit, Mich.

I have used Resinol for several years, and as an antipruritic and antipyretic it has no equal.
WM. B. CRITTENDEN, M. D., Horton, W. Va.

I have used Resinol Ointment and Soap with much satisfaction.
C. S. HALEY, M. D., San Francisco, Cal.

I find Resinol an excellent preparation; as close an approach to being a specific as possible.
WM. CULP BROWN, M. D., Austin, Ill.

I get the best of results from Resinol.
JNO. KURTZ, M. D., Washington, D. C.

RESINOL CHEMICAL COMPANY, BALTIMORE, MARYLAND.

GREAT BRITAIN BRANCH,
97 NEW OXFORD STREET, LONDON, W. C.

CHAS. MARKELL & CO.
AGENTS FOR AUSTRALASIA, SYDNEY, N. S. W.

Euquinine Tasteless Quinine

"Fully Replaces Ordinary Quinine."

Dr. St. George Gray, of St. Lucia, West Indies, after using Euquinine in many cases of malaria, writes: "Euquinine is specifically as effective as quinine; it is, moreover, superior in being tasteless."

Marketed as Euquinine pure (flaky masses) and in Merck's Tablets — 2 grn. and 5 grn.

Saloquinine

Quinine ester of salicylic acid. A tasteless powder. Produces prompt results in **neuralgias** and **neuroses.**

Rheumatine

Careful observers concede it to be valuable in **rheumatism.** Rheumatine is saloquinine salicylate.

CLINICAL REPORTS TO PHYSICIANS ON REQUEST

MERCK & CO. UNIVERSITY PLACE NEW YORK

Some Common Forms of Dermatitis and the Treatment.*

An examination of any of the standard text-books on a dermatology will show that dermatitis is a very extensive subject and that many chapters are devoted to the various aspects of this condition. In this paper it is my intention only to deal with those types of dermatitis which are seen daily in the practice of the physician in general practice.

Dermatitis Calorica.—This type of dermaties is the result of the action of heat or cold. It assumes two expressions,—*dermatitis ambustionis*, and *dermatitis congelationis*. The former is due to exposure to the heat of the sun or to artificial heat. This varies very naturally in degree and extent, and the outcome of the case is dependent on the depth and extent of the inflammation.

Dermatitis Congelationis, or frostbite, is one of the most painful, as well as one of the most common forms of Dermatitis. In nearly all parts of the United States the practitioner is, through the winter months, called upon to treat frostbite.

Dermatitis Exfoliativa.—This form of inflammation of the skin bears several names. Some authors dominate it pityriasis rubra (Hebra) others call it exfoliative eczema, and it has been understood differently by many different writers. It is an inflammatory disease of the skin, in which a large area is involved and is characterized by redness and prolific desquamation.

Dermatitis Herpetiformis.—This dismal inflammation is characterized by intense pruritus, by chronicity and by the "great multiformity and marked grouping of the lesions." It appears often as covering the entire cutaneous surface, and at other times it only occupies a small area. It gives rise to much itching and burning and there is often marked systematic disturbance. Eruption may be erythematous, vesicular, bullous, pustular or papulous, or a combination of any of these. This form of skin inflammation is very distressing and it is very commonly seen in the practice of all physicians.

Dermatitis Traumatica.—This form of dermatitis is due to traumatic elements of causation such as blows, rubbing and like factors. This type of dermatitis is subject to the usual course of inflammatory disease in other tissues of the body and may, of course, result in gangrene, if not properly treated, or if not capable, owing to conditions present, of cure.

Dermatitis Venenata.—This form of dermatitis is characterized by redness, heat and swelling of the skin and is the result of the action of some poison on the skin. Rhus toxicodendron—ivy poison—is the causative factor in a large number of causes. It is a widespread disease condition and will be found to give the patient the greatest distress.

I will take up the treatment individually and collectively of the various types of dermatitis.

The treatment of burns demand prompt and effectual treatment. In these cases we shall obtain good results only by cleansing the burnt surface as well as we can and applying over the entire area such an agent as will exclude air, relieve pain. In carrying out this I have found no remedy equal to Resinol applied over the entire burned surface. This at once relieves pain and perfect relief at once ensues. This is to be left on until a complete cure is attained. The Resinol is to be applied every twelve hours or oftener as occasion requires.

Frostbite requires to be carefully washed with a fifty percent solution medicinal peroxide of hydrogen, and after this has fully dried the entire surface is to be covered with Ung. Resinol. This is to be applied freshly every four or eight hours and its employment persisted in until resolution is complete.

In Dermatitis Exfoliativa we shall have to give the patient such internal remedies as the systemic defects seem to indicate. The local treatment will consist in daily washing the skin with Resinol Soap and tepid water, and after this the annointment of the affected part of the cutaneous surface with Resinol.

Dermatitis Herpetiformis is a disease which very often is most rebellious to treatment. The general health must be built up and the systemic disturbances present must, if possible, be removed. To relieve the great burning and the intense itching the application of Resinol will be found absolutely indispensable. The local application of this agent and properly directed internal treatment offer means of treatment at our disposal.

Dermatitis Traumatica is quite common and I can best express its treatment in the words of Jackson: "The treatment of this form of dermatitis should be soothing, such as by the free use of dusting powders, alkaline lotions or mild ointments." In these cases it is my custom to clean the surface well with peroxide of hydrogen and then apply Resinol. This is by far the best remedy to subdue inflammation of the skin.

Dermatitis Venenata.—In the control of poison ivy no treatment has equaled the application to the inflamed surface of peroxide

* Charles W. McIntyre, M. D., New Albany, Ind.

RECENT PUBLICATIONS.

Physical Diagnosis in Obstetrics

A Guide in Ante-Partum, Partum and Post-Partum Examinations. By EDWARD A. AYERS, M.D., Professor of Obstetrics in the New York Polyclinic Medical School and Hospital, etc., etc. 8vo. 304 pages. Illustrated. $2.00, net.

Childbed Nursing

With Notes on Infant Feeding. By CHARLES JEWETT, M.D., Professor of Obstetrics and Diseases of Women in the Long Island College Hospital, Brooklyn, N. Y. **Fifth Edition.** 12mo. 96 pages. Cloth, 80 cents net.

Syphilis—A Symposium

Contributions by Seventeen Distinguished Authorities. L. DUNCAN BULKLEY, WM. S. GOTTHEIL and others.
12mo. 125 pages. Cloth, $1.00 net.

International Medical Annual, 1903

A Year-Book of Treatment, combining the features of an Annual Retrospect with those of a Medical Encyclopedia. *In Press.*
8vo. 738 pages. Illustrated. Cloth, $3.00 net.

Obesity—The Indications for Reduction Cures

By PROF. DR. CARL VON NOORDEN, Translated under direction of DR. BOARDMAN REED.
60 pages. 50 cents net. 8vo.

Nephritis

By PROF. DR. CARL VON NOORDEN, Translated under direction of DR. BOARRMAN REED.
112 pages. $1.00 net. 8vo.

Legal Medicine—A System of

By ALLAN MCLANE HAMILTON, M.D., and thirty others. SECOND EDITION, revised and enlarged. 2 vols. 700 pages each. Cloth, $10.00; Sheep, $12.00.

Sexual Debility in Man

By FREDERIC R. STURGIS, M.D., Formerly Clinical Professor of Venereal Diseases, Medical Department, University of the City of New York, etc. 8vo. 436 pages. Cloth, $3.00 net.

Books delivered free to any adress in the Universal Postal Union upon receipt of advertised price.
Our complete catalogue sent upon request.

E. B. TREAT & CO., 241-243 W. 23d St., New York.

Surgical Instruments Free

BY THE ADOPTION OF

RAY'S DIRECT ORDER PLAN.

The best and newest Instruments of the most reliable makes. We do not make Instruments, and we do not sell them.

We are Exclusively a Pharmaceutical House and our Prices are Lower than those of other Reliable Manufacturers.

Only the best and purest ingredients, scientific knowledge, and skill enter into our products.

Our discounts are large because we operate on an extensive and economical scale.

RAY'S DIRECT ORDER PLAN means:—We secure all orders through correspondence, employing no salesmen or detail men, thus saving 20 per cent. of the total cost of getting business. Therefore, over and above all regular discounts we credit our customers with 20 per cent. of the net amount of every purchase, and use that money to buy the instrument you want.

Your instrument credit is redeemable on each order, or can accumulate, just as you choose.

Send us a trial order and convince yourself of the many advantages of adopting our plan.

Catalogue with Discounts mailed on Request.

THE RAY CHEMICAL CO.,

Manufacturing Pharmacists. **Detroit, Mich.**

followed by the application to the thickness of one-sixteenth of an inch of Resinol. This speedily overcomes the inflammation and the morbid process subsides.

In the treatment of all forms of dermatitis it is highly important to correct any systemic disease that may coexist. Hutchison very correctly lays stress on the importance of this in treating frostbite. He says cures will be tardy or failure will result if a coexistent anæmia be overlooked, or if lithæmia or any other morbid condition of the system be ignored. In all cases the general state of the system must be carefully looked into.

Below I submit a few clinical histories told as briefly as possible, which will illustrate the efficacy of the treatment here advocated.

V. D., age 8. This little girl went into the kitchen and picked up a frying pan which was extremely hot, and as a result the palm of her hand and fingers were burned very severely. I was sent for and found the child almost in convulsions. I cleaned the hand as well as I could with peroxide diluted, and applied Resinol to the thickness of an eighth of an inch. This eased the pain instantly and the child recovered entirely in a few days—resolution having taken place under the remedy. The Resinol was applied fresh every eight hours. It was scraped off with a knife before a new application was made.

Mrs. C. C. had frostbite which involved several toes. These were extremely painful and she was not able to walk about. On Resinol and peroxide being used as in the above case, this patient soon recovered entirely. The dermatitis ceased to have pus jets and healing began the second day after the Resinol was begun.

S. P., age 25. This young man had been out in the country enjoying the pastime of climbing trees and discovering birds' nests with a view of obtaining a collection of the eggs of wild birds. He returned home with a violent case of rhus poisoning and applied to me for treatment. He was treated by having his hands washed with peroxide and then applying Resinol. The Resinol was never entirely taken off, but new applications made twice daily. A cure was attained in a week of this treatmont.

M. I. J., age 31. This patient with dermatitis herpetiformis, was treated with Resinol and given iron internally and a cure was attained in four weeks. The intense itching and burning subsided after the first application of Resinol.

Value of Thiocol in Phthisis.

Dr. Plesch speaks highly of the use of thiocol in pulmonary tuberculosis. He refers to the fact of its being the only water-soluble guaiacol compound known in medicine, and thus administrable in any pharmaceutical form as well as subcutaneously, and to its ready assimilation in the system (up to 70 per cent. being utilized). "The same results can be obtained with thiocol as with creosote; but whereas in the case of the latter disagreeable by-effects may supervene, these are precluded in the case of thiocol as the latter is neither poisonous nor locally harmful even when used in large quantities. Thirty grains of thiocol per day is usually a sufficient dose."—Orvosok Lapja, 1902, No. 8.

Dr. A. R. von Weissmayr, referring to thiocol, agrees with Mendelsohn, Schnirer, and others, in saying that "we now possess a creosote derivative which has all the therapeutic virtues of creosote without a single one of its drawbacks; which is free from all untoward action; and which, by dint of its non-poisonous, non-irritativeness, free absorption, and decided favorable influence upon the tuberculous process, is worthy of a prominent place in the therapy of tuberculosis." He has found thiocol always to be taken willingly and to be borne well. He usually gives the drug in wafers or dissolved in water—5 to 10 grn., 3 times daily, before meals.

Great improvement of appetite, fever, night-sweats, cough, and expectoration, and increase in weight, are commonly its effects. —Klin. ther. Woch , ix, Nos. 8-9.

Quick and Sure and Time Tried.

No doubt many of our Doctor friends will recognize in the following, from Chas. B. Forsyth, M. D., (Bellevue Hospital Medical College, New York City), dated Alexandria Bay, N. Y., Jany. 6th, 1903—an expression which will, in many instances, recall their own experience. He says: "I can say no more than that I have used Antikamnia Tablets since I began practicing medicine. Several times I have switched to other preparations, but I invariably come back to Antikamnia Tablets, when I want quick and sure results."

The Antikamnia Chemical Company, St. Louis, Mo., is an old and responsible concern, and any of their medicinal specialties may be depended upon, to be just as represented. The latest additions to their list of preparations are "Antikmnia & Heroin Tablets" and Laxative Antikamnia & Quinine Tablets." Send to them for samples, mentioning "Charlotte Medical Journal."

MODERN METHOD of DELIVERY

NO INJURY TO MOTHER NOR CHILD

BLADES UNITE THE NET

BLADES APPLY THE NET

ST. CYR'S OBSTETRICAL TRACTOR

BY

PRACTICAL OBSTETRICIANS

Price, $15.00 (COMPLETE with one-half dozen Chinese Vegetable Silk Nets.) **Nets, each, 10 cents**

United States Patent November 11, 1902. Canadian Patent December 9, 1902.
REMIT by Postal or Express Order. Also Expressed C. O. D.

Why Not Order NOW and be Prepared.

Money Refunded upon return of instrument, if in any way unsatisfactory after THIRTY DAYS' TRIAL.

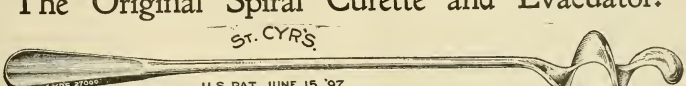
ORDER TO-DAY.

The Most Humanitarian Method of Delivery.

Upon Application we will mail you an illustrated Monograph.

Sole Manufacturers and Retailers .... **VICTOR V. MAY & CO.,** (Incorporated.)
SURGICAL AND PHARMACEUTICAL SPECIALTIES.
538 Ashland Avenue, CHICAGO, ILL.

The Original Spiral Curette and Evacuator.



The St. Cyr Curette is so perfectly constructed that a change in its form, or shape, will make it imperfect and thereby impair its efficiency.

THREE SIZES **Price $3.50 Each, Any Two $6.50, All Three $.800** LARGE SMALL MEDIUM

☞It makes sepsis practically impossible as it has no groves, no holes, no extraneous parts to carry septic matter into the uterine cavity. Furthermore, it will not only detach but evacuate as well.

It curettes and evacuates uniformly without danger or pain.

Its construction is perfect and well adapted for successful operations

No physician can afford to be without a complete set of three "THE ORIGINAL" ST. CYR SPIRAL CURETTES AND EVACUATORS.

EVERY ONE IS GUARANTEED TO OPERATE.

SOLE MANUFACTURERS

VICTOR V. MAY & CO., (Inc.) Surgical and Pharmaceutical Specialties **538 Ashland Ave., Chicago, Ill.**

Verge of Collapse

Colden's Liquid Beef Tonic pulls the exhausted forces together; furnishes staying and resisting power to shattered nerves; presents nutriment to perverted digestive glands in a form eagerly seized on and transformed into rich blood.

It steadily brings the whole system away from the danger point,—soothing, nourishing, invigorating, building.

Wide use in hospital and private practice bears out the verity of each of these statements.

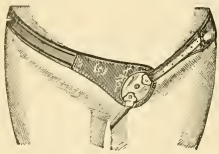
Colden's Liquid Beef Tonic commands attention throughout Europe and America.

For sale by druggists generally.

THE CHARLES N. CRITTENTON CO., 115-117 Fulton St., New York
Samples free to physicians. Sole Agents for the United States

Flavell's Elastic Trusses,

Can be Worn Day and Night.



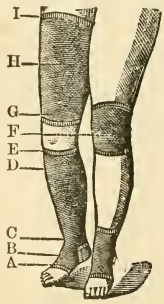
SINGLE TRUSS	Adults
A. Plain	$1.50
B. Fine	2.00
C. Silk	2.50
DOUBLE TRUSS	**Adults**
A. Plain	$2.50
B. Fine	3.00
C. Silk	4.00

PNEUMATIC PADS

Give circumference of abdomen on line of Rupture. State if for Right or left.

ELASTIC STOCKINGS.

Give exact Circumference and Length in all Cases.



NET PRICE TO PHYSICIANS.

	Stout Silk each	Fine Silk each	Thread each
A to E	$2.50	$2 00	$1.50
A to G	4.25	3.50	2.50
A to I	6.00	5.00	4.50
C to E	1.50	1 25	1.00
E to G	1.50	1.25	1.00
A to C	1.50	1.25	1.00

Goods sent by Mail upon receipt of price.

Safe delivery guaranteed.

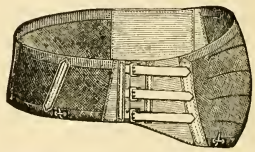
Send your Orders Direct to

G. W. FLAVELL & BRO.,
1005 Spring Garden Street, Philadelphia, Pa.

We Solicit the Physician's Patronage Direct.

ABDOMINAL SUPPORTER.

Give exact circumference of abdomen at K. L. M.

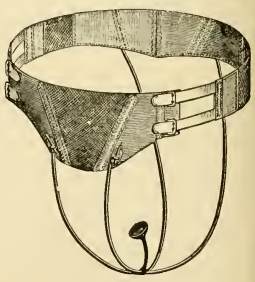


Silk Elastic.....$3.25
Thread Elastic..... 2.50

Flavell's Uterine Supporter.

Give measure 2 inches below Naval.

State if for Prolapsus, Retroversion or Anteversion.



NET PRICE TO PHYSICIANS

$2.50

TABLE OF CONTENTS FOR MARCH, 1903.

Original Communications.

The Medical Man of the Future, by Stanley H. Graves, M. D., Norfolk, Va..... 149

Medical School Inspection in the City of New York, by H. P. Johnston, M. D., New York City..... 154

Is America a Spectacled Nation? by Francis Valk, M. D., New York..... 158

Croupous Pneumonia, by Dr. Marvin P. Skeen, of Wapanucka, I. T..... 161

Methyl Alcohol Poisoning, by G. E. Hartshonn, M. D., South McAlister, I. T. 164

Granulated Lids, by F. M. Duckworth, Claremore, I. T..... 165

Editorials.

Diagnosis of Typhoid Fever 167

Smallpox in North Carolina 167

Cold Water and Nerve Energy..... 168

International Statement Concerning Alcohol 168

The Plague 169

The Vampire Bat..... 169

A Conference Regarding the Bubonic Plague..... 169

Revival of the Index Medicus 170

Book Notices.

International Clinics, by leading Members of the Medical Profession throughout the world, edited by Henry W. Cattell, M. D., Philadelphia, et. al 171

A Manual of Toxicology, by Albert H. Brundage, M. D., Brooklyn..... 171

The Practical Medicine Series of Year Books, under the general editorial charge of G. P. Head, M. D..... 171

Transactions of the American Laryngological Association, 1902 171

Lea's Series of Medical Epitomes.—An Epitome of Physiology for Students and Practitioners of Medicine, by Theodore C. Guenther, M. D. and Augustus E. Guenther, B. S. 172

W. B. Saunders & Company announces the establishment of a branch of their business in New York... 172

The American Year-Book of Medicine and Surgery for 1903, edited by George M. Gould, M. D..... 172

A Text-Book of Clinical Medicine, Principles of Diagnosis, by Clarence Bartlett, M. D..... 173

The Practical Medicine Series of Year Books.... 173

Transactions of the American Surgical Association, Vol. XX. 1902..... 173

Literary Notices.

The February Lippincott's Magazine..... 173

Review of Reviews for February..... 173

Abstracts.

Anesthesia 178

Appendicitis..... 184

An Improved Method for the Microscopical Diagnosis of Intermittent Fever..... 186

Atonic Gastric Insufficiency and Dilatation..... 187

Antipyresis in Children.... 192

Boiling as a Method of Sterilizing Catheters..... 191

Diagnosis in Surgical Diseases of the Kidney..... 183

Diabetes Insipidus..... 186

"Examination of Milk by General Practitioner".. 175

Gallstones..... 191

How Eye Strain Causes Headache 174

Hot Water Injections for Vascular Neoplasms..... 188

Intravascular Antisepsis.. 166

Mimicry of Pregnancy by Fibroid and Ovarian Tumors..... 182

Method of Giving Mercury in Syphilis..... 184

Obscure Abdominal Pain.. 184

On the Treatment of Glycosuria and Diabetes Mellitus with Aspirin..... 190

Pathology of Typhoid Fever 181

Successful Splenectomy During Typhoid Fever .. 175

Static Electrotherapy..... 183

Sepsis Following Abortion and Labor..... 184

Sarcoma of the Ovary..... 189

Surgical Treatment of Empyema. A Report Based Upon Seventy-five Cases Observed Chiefly in St. Mary's Hospital for Children..... 192

The Diuretic Action of Rectal Irrigation. The Specific Action of Normal Saline Solution in the Products of Diuresis..... 176

Treatment of Pneumonia.. 176

The Bladder after Hysterectomy 177

The Prophylactic Treatment of Enteric Fever by Inoculation..... 177

The Surgical Treatment of Cirrhosis of the Liver... 179

Treatment of Infantile Eczema..... 179

The Treatment of Nervous Affections of the Heart.. 181

Typhoid Fever with Trichiniasis and Eosinophilia. 185

The Blood of Pregnancy and the Puerperium..... 186

Tuberculosis 187

The Surgical Treatment of the Enlarged Prostate... 187

The Malignancy of Joint Tuberculosis 189

The Surgical Treatment of Cancer of the Uterus.... 189

The Exploratory Method of Rib-Resection in Old Pyothorax..... 190

The Use of Cinnamic Acid and Sodium Cinnamate in the Treatment of Tuberculosis..... 190

The Malignancy of Joint Tuberculosis. Illustrated by a Series of Forty-seven Cases..... 191

The Widal Reaction in Infancy and Early Childhood..... 192

Ulcer of the Bladder..... 191

X Light in Therapeutics.. 177

X-Ray in Therapeutics.... 183

Every function of the body is controlled by the nervous system, hence, just to the extent of the nerve lesion, will there be a depression of the vital forces. The experience of the profession proves that one of the best possible remedies for this condition is Celerina, in teaspoonful doses, four or five times a day. No one, after an intelligent use of Celerina, will deny its power to give renewed energy to the whole nervous system.

Is This Wolf-Wolf?

For years the medical journals have been trying to convince the practitioner of the widespread evil of substitution and adulteration in drugs. But the profession has turned a half credulous, half indifferent ear, as if bored at the familiar sound of "Beware of Substitution," and "None genuine without this mark." They have in some instances hinted that it was necessary for the journals to support their advertisers; and have firmly believed that the adulterations were confined to proprietary medicines put up in labeled bottles and taken at the public's risk.

How many physicians make a practice of going behind the scenes and watching the preparation of a prescription, and how many if they did so would be able to tell by the form in which the crude drugs were handled whether they came originally from reputable sources, or whether they were bought by the honest but misled druggist, from middlemen who successfully adulterated their wares?

From the laboratories where the exact potency of an absolutely pure drug is determined for endorsement in the U. S. Pharmacopœia, to the druggist's counter where supposably the same potency is being handed out on a physician's carefully written prescription there is often so wide a variation that one wonders whether it would not be safer for us to go back to the days of herbs and simples, and to cull and brew our own remedies.

At last the Health Department of New York has brought to the attention of the medical profession through the daily press, a forcible reminder of the widespread practice of substitution and of the adulteration of drugs. The medical profession has for years been thwarted in the greatest emergencies by the false values of the remedies furnished to their patients in their prescriptions. But the public has treated them with that tolerant, easy-going air of good-natured understanding, as though one should say "It *is* hard to see another man getting one's profits," and has given the warning no more thought than would be bestowed upon a patent medicine vender's earnest plea to "Take no other," and "Beware of Substitions."

Commissioner Lederle has set in operation a wholesale examination of the stuff that is commonly sold as phenacetin. His physicians and staff have purchased phenacetin powders from 373 drug stores, in Manhattan and Brooklyn. The official report gives the names of all, and includes many well-known drug stores, and department stores. *Among these samples, only 58 were found to be pure phenacetin, while the greater number, 315 were adulterated.* The chief adulterant was found to be acetanilid, selected undoubtedly because of its cheapness, and its similar effects, in part, to phenacetin.

In the sale of an ordinary ten-grain pure phenacetin powder, the druggist makes a little over 200 per cent. He buys the phenacetin at $1.00 per oz. and retails it in small quantities at $3.20 per oz. If his adulterant be acetanilid it is bought at the rate of 2½ cents an ounce, leaving him his sales almost clear. This mean and petty money traffic need not, however, be laid at the door of the retail druggist alone. It is important to lay the blame, however, where it is due, for the question is one with a double moral issue. The physician does not trouble himself about the druggist's profits or his sense of honor in dollars and cents; but he has his patient's health in his hands, and when he finds, if he ever does learn, that a cheap heart depressant such as acetanilid given in his prescription instead of the drug on whose certain action he is depending, he is justified in his honest indignation.

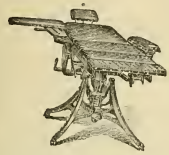
This is by no means a single instance. Nearly every drug in the Pharmacopœia is adulterated, and as such fails to give the desired action. So great has this evil become that we often confess to one another that we prescribe less and less, and confine ourselves to a few fundamental drugs, remedies which we think we obtain from reliable sources and give in cases of necessity, leaving our patients to take their favorite compounds of tonics and appetizers on their own responsibility.

If drugs could be treated sacredly, exactly, and conscientiously by the druggists, and by the public, as they are in hospitals, in experimental laboratories, and as physicians themselves treat them, the practice of medicine would be a more satisfactory profession than it is at present.

We trust that in this particular case the New York Board of Health, which does nothing by halves, will trace this scandal to its source, and further, we hope that physicians and druggists will prove as energetic as are the manufacturers of cereals and baking powders in establishing pure food laws, and will bring the enactment about pure drug laws, that will at least serve as a warning to offenders, and a caution and protection to the trusting prescribers and buyers of drugs.—Medical News.

Drug Substitution and the New York College of Pharmacy.

Whereas, the substitution of one article when another is called for, or of an article of one brand when that of another is ordered, involves an act of deception and an

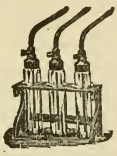

Surgical Chair.

FEICK BROS. COMPANY.

HEADQUARTERS FOR

SURGICAL INSTRUMENTS and PHYSICIANS' SUPPLIES.

Quality of first importance always, but prices likewise low. A few specialties.


Davidson Atomizers.

Artificial Limbs, Nose and Throat Instruments,

Electric Batteries, Orthopædic Apparatus,

Invalid Supplies.

Elastic Hosiery.

Trusses.

Artificial Eyes.

Braces.

414 WOOD STREET, : : : : : : : : : PITTSBURG, PA

The Baltimore Medical College.

Preliminary Fall Course begins September 1, 1902.

Regular Winter Course begins September 25. 1902.

Excellent Teaching Facilities; Modern College Buildings; Ideal Lecture Hall and Amphitheaters; Large and Completely Equipped Laboratories; Capacious Hospitals and Dispensary; Lying-in Department for Teaching Clinical Obstetrics; Large Clinics; Send for Catalogue, and address DAVID STREETT, M.D., Dean. 712 Park Ave., Baltimore, Md.

For Amenorrhœa and Dysmenorrhœa

The emmenagogue properties of this drug, proved by physiological experiments on animals, are due to its specific action, which stimulates uterine circulation and determines vascular congestion, excitement and a peculiar contractibility of the smooth muscular fibres of the uterus.

CHAPOTEAUT'S

APIOLINE

(Registered).

The true active principle of parsley, (differing from so-called Apiol) in four minim capsules.

Apioline is harmless, certain in results and easy of administration. It should be given in doses of 2 or 3 capsules daily, with meals, two to three days previous to the expected menstrual epoch

Apioline regulates and promotes an almost painless flow of the menses.

Sold in original bottles only.

RIGAUD & CHAPOTEAUT, Paris.

New York: E. FOUGERA & CO.

Santal-Midy

OL: SANTAL: FLAV: PUR: (MIDY)

The standard preparation of Sandalwood Oil, in 5 minim capsules. Superior to all commercial oils in the treatment of specific and non-specific Urethritis, Cystitis, Bronchitis, and wherever the properties of Sandal Oil are indicated in inflammatory conditions of the mucous membranes.

abuse of the confidence of physician or patient, and an act of injustice toward the manufacturer of the article so specified, and Whereas, the general commission of such acts is destructive to those mutual relations of confidence between manufacturer, pharmacist, physician and patient upon which the highest success of medical practices appear to be increasing at the present time, and threatening serious professional and commercial difficulties, therefore, it is Resolved, that the College of Pharmacy of the City of New York publicly condemn all acts of substitution whether in prescription work or in ordinary trade; that it declares such practices to be violations of just dealing, opposed to the principles of professional ethics and subversive of good morals, and it is further Resolved, that we exert our utmost influence both as individuals and as an institution, to discourage such practices and to promote professional and commercial confidence. — Medical News.

Rational Treatment of Gout.

Referring to the diagnosis of gout, the following symptoms are worth mentioning: Gastritis, enteritis, hemorrhoids, migraine, neuralgias, sciatica, lumbago, ocular inflammations, varicose veins, nephritis, gravel, and we may add Pulmonary catarrh in the aged. As can be readily understood, gout is in the main an affection of the stomach, liver, pancreas and kidneys. Hence the necessity of instituting at once a treatment regulating the functions of digestion and assimilation. This is readily accomplished through the persistent and systematic administration of Kutnow's Powder once or twice a day, an hour before meals. This preparation corrects the acidity of the stomach, and regulates the liver, while acting on the kidneys. We may keep in mind, also, that the timely administration of Kutnow's Powder is an admirable preventive. When prescribing Kutnow's Powder in suitable cases, doctors may desire to test the acidity or alkalinity of the urine. Kutnow Brothers, Ltd., 853 Broadway, New York, will send to every physician two boxes of the very best Litmus papers obtainable, put up in a specially convenient form, each box containing sufficient amount for 100 tests. Whenever the supply is exhausted, they will renew the boxes if the physician will drop them a postal.

Iodipin Subcutaneously.

Dr. Hehnke relates his experience with hypodermic injections of iodipin (iodized sesame oil) in five cases, as follows:

I.—Paralysis. Syphilis 20 years previously. Tabetic symptoms, fixed pupils, pains in both legs, girdle sensation, complete absence of patellar reflexes; also pronounced paralytic disturbances of speech, heaviness and pressure in the head, vertigo, and loss of memory. Mercurial inunctions and potassium iodide of no avail, condition grew worse. Now injections of iodipin 25 per cent. were given—150 Gm. [5 oz.] in all, 15 Gm. [½ oz.] every second day. Marked improvement was observed after the third injection; and after the tenth injection all the symptoms had disappeared—pupils reacted to light, the vertigo, pains and difficulty of speech were gone, the patellar reflexes were present, etc.

II.—Equally good results were observed in a case of acteriosclerosis with marked cerebral symptoms, and intracranial pressure. Four injections each of 15 Gm. [½ oz.] of iodipin 25 per cent. produced considerable improvement, after sodium iodide proved ineffectual.

III.—A case of Basedow's disease with very violent attacks of tachycardia improved markedly after two injections of iodipin 25 per cent., 15 Gm. each.

IV.—Real good service was rendered by iodipin injections in tuberculous adenitis of the neck. In two such cases the enlargement diminished one-half in size after six injections.—Medico. 1902, No. 46.

Febrisol in Typhoid Fever.

I have been in active practice thirty-two years and have lost only two cases of typhoid fever. I have a very serious case now, in which I have used a half-pound bottle of Febrisol (Tilden's) and must say it is the best preparation I have ever tried. With it you can control the temperature to a certainty and no depression follows.

W. S. Cline, M. D.,
Woodstock, Va.

Copied from the St. Louis Courier of Medicine, isssue of January, 1903.

A Philadelphia physician recently predicted that in ten years the medical profession would have thrown all their antitoxin syringes in the ash barrel. It seems, however, that he allowed too much time for since the advent of Stearns' Syro-Bulb the old syringes have been thrown away at a lively rate. The Syro-Bulb contains the antitoxin and takes the place of a syringe perfectly, also furnishing a new, clean syringe for each case without extra expense.

Insomnia.

"I prescribed Neurosine in a case of persistent Insomnia, where Chloral, Bromides, etc., failed to relieve, and was very much pleased with the immediate results."

H. F. Moore, M. D.,
28 Masonic Temple, Denver, Colo.

Marshall's Patent Convertible

HAND CASE SADDLE BAGS.

Fig. 1 is Fig. 2 in Saddle Bag Form. One side open. Fig. 2 is Fig. 1 in perfect Hand Case Form, closed.

Write for complete Catalogue Showing all Styles of

Converting and Non-Converting Saddle Bags.

Buggy Vial Cases and Gynæcological Bags at Lowest Prices.

E. B. MARRHALL,

183½-189 Lake St., - - - - Chicago.

NEURILLA

NERVE CALMATIVE

NERVE HEALTH follows its use.

DOSE: Teaspoonful every half hour until nervousness is abated, then four times a day. Teething Children 10 to 20 drops.

DAD CHEMICAL COMPANY, NEW YORK.

THE CHARLOTTE OBSERVER.

A Democratic Newspaper devoted to the advancement of North Carolina and the South. : : : : : :

Daily, $8 Per Year. Weekly, $1 Per Year.

J. P. CALDWELL,

Editor and Manager, Charlotte, N. C.

WE CAN COLLECT

Your old bills. We are turning worthless accounts into ready cash for scores of physicians

NO COLLECTIONS, NO PAY, in each state. The largest exclusive Physicians Collecting Agency in the United States. Write for terms.

Physicians Protective Assn., Kansas City, Mo.

TERP-HEROIN

Foster's

A Respiratory Antispasmodic Sedative and Expectorant

Most successfully indicated in the treatment of all diseases of the respiratory tract, attended with Cough and Dyspnea, Pulmonary and Laryngeal Tuberculosis, Bronchitis, Laryngitis, Pneumonia, Emphysema, Asthma, and Whooping Cough.

CONTAINS

Terpin Hydrate 2 grs. and
Heroin 1-24 gr. to the drachm in a vehicle of Prunus Serotina and
Glycerine, making it a very agreeable and palatable preparation; being tolerated by the most sensitive stomach.

DOSE:—Teaspoonful every two or three hours.

POSITIVELY
ABSOLUTELY and
INCONTROVERTIBLY
the best RESPIRATOSY SEDATIVE ever offered to the PROFESSION.

It DOES control the cough.
It DOES relieve the congestion of the passage; and
It DOES make expectoration easy.

Being a remedy of proved value it rests upon its own merits.

PUT IT TO THE TEST.

Prescribe TERP-HEROIN (FOSTER'S) in Original 250 c. c. (8 oz.) bottles to avoid substitution.

Samples and Literature on application.

JOHN B. FOSTER & BROTHER,
Newark, N. J

Antiphlogistine vs. Pneumonia.

How does Antiphlogistine abort pneumonia, and further, how does Antiphlogistine resolve pneumonic consolidation? These queries are very often made by acute observers who have attended case after case of pneumonia with favorable termination under the influence of Antiphlogistine.

The action of Antiphlogistine is dependent upon well-defined physiological laws, that a most important reflex association exists between the vessels of the skin and the under-lying tissue; that, when the superficial blood-vessels dilate, the deep-seated ones contract. Continuous stimulation of the cutaneous reflex maintains continued relief by persistent contraction of vessels in the inflamed area of lung tissue. Such governing action prohibits extension of the products of inflammation through infiltration by effecting rapid absorption and elimination of toxines. The infected area becomes self-limited as the adjacent blood-vessels supply well-aerated blood to compensate for the surcharged venous blood due to pulmonic consolidation. Under reflex control Antiphlogistine resolves hepatization of lung tissue and through osmosis and dialysis assists the superficial blood-vessels and lymph spaces to drain the hyperæmic parts by direct capillarity. Lessened blood-pressure prevents administration of whipping medication to the overburdened heart.

Etiology and Symptomatology of Goitre.

J. G. Adami reviews at length the whole question of the case of goitre, especially as it concerns the island of Montreal. In some French Canadian villages scarcely a family is to be found without one or more goitrous members. It is generally accepted that weather has to do with its development, but how it does so is absolutely unknown. In favor of the infective origin not a few facts have been brought forward. In one instance one thousand and nine soldiers of a regiment, whose quarters had been changed to a goitrous region, became affected. Lustic and Carrele found a bacillus constantly present in goitrous waters. If the individual is removed from the goitrous region sufficiently early, the tendency is for the enlargement to disappear.—Indian Medical Record.

The productions of Flavell's, No. 1005 Spring Garden St., Philadelphia, Pa., Manufacturers, are Elastic Stockings, Abdominal Supporters, Trusses, etc., which are offered to the Medical Profession direct. Their prompt attention to all orders and extensive facilities enable them to fill orders at once. If you have not used their goods, send a postal card for their catalogue.

Case of Wandering Hydatid.

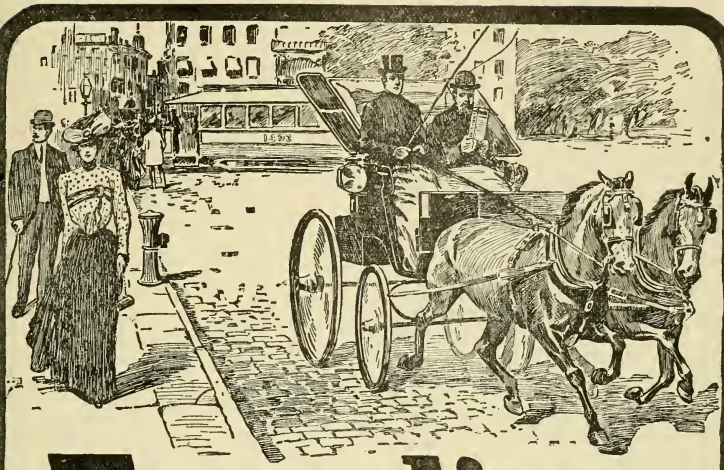
J. Small reports the case of a man forty-five years of age, a wool classer. The man had always been well and strong; he did not smoke or drink. He presented himself with a large swelling on the right dorsal surface of the chest, showing through the clothes. About three years previous, the patient heard a crack, and at once a swelling about as large as a saucer appeared. There was no pain, cough, or inconvenience. On rubbing, it sometimes became flatter and smaller. The final diagnosis before operation was a hydatid. This proved to be correct. The cyst contained from three to four pints of purulent fluid. The wound was dressed daily. Five days after the operation the discharge proved to be pure bile; a month after operation the wound was perfectly healed. The writer calls attention to the remarkable fact that a cyst could emigrate from the liver, perforate the diaphragm, pleura, etc., and finally erode and burst through a rib—for there was discovered a round hole in one of the ribs—all without causing pain, discomfort, or cough.—Intercolonial Medical Journal of Australasia.

Reed & Carnrick are to be congratulated upon the election of Dr. Edwin Leonard, Jr., to the presidency; this action is along the line, which we have attained, that a sharp demarkation must be drawn between reputable pharmaceutical houses and those mushroom growths, which treat the physician in a most unethical fashion.

The election of Dr. Leonard, who is an alumnus of Amherst and received his medical degree from Harvard, and has had years of training in three of the largest and best known hospitals of Massachusetts and is also a member of the American Medical Association, the Massachusetts Medical Society and other similar medical and scientific societies, starts a new and pleasing era, that sooner or later must be followed by other reputable houses, i. e., that the control of pharmaceutical products should be in the hands of trained medical men.

We feel assured by the action on the part of Reed & Carnrick that the high standard of their products will be maintained.

The Eleventh International Congress of Hygiene and Demography will be held in Brussels from September 2nd to 8th, 1903, under the patronage of H.M. the King of the Belgians. The Secretary-General of the Congress is Professor Dr. F. Putzeys. All information and programmes can be obtained from Dr. Paul F. Moline, 42 Walton Street, Chelsea, S.W., the Hon. Secretary of the British Committee.



Terraline

has been adopted by many LEADING PRACTITIONERS, General, Consultant and Specialist, as *the* remedy in

WASTING DISEASES,

on account of its stimulating effect on the processes of nutrition. It aids elimination, promotes metabolism, creates appetite, and, being easily emulsifiable and assimilable, checks waste and favors convalescence from infectious and other exhausting diseases. It is a pure petroleum product, odorless and tasteless, and is prescribed with excellent results in all conditions on account of its freedom from nauseating properties. It possesses the great advantages of being germicidal, not deteriorating with age, remaining unaffected by climatic changes, and always fresh and pure.

TERRALINE is put up in 12-oz. bottles only; (*never sold in bulk*) and may be obtained at all prescription druggists.

A regular size bottle will be forwarded free to any physician, upon receipt of 25 cents to pay carriage.

The Hillside Chemical Company,

Sole Proprietors. Newburgh, New York.

Prevention of Cystitis.

In cases where frequent catheterization of the bladder is necessary there is always danger of producing a cystitis even with the most constant attention to preventive measures. With such patients it is not to wait until the bladder has become distended but to catherize at short intervals (from three to four hours), of course giving proper care to the instruments.

As an auxiliary prophylactic measure Cystogen, gr. v twice daily, should be given. This inhibits the growth of bacteria in the urine and prevents irritation of the neck of the bladder so frequent and annoying in these cases. This precaution is also advisable before the after prostatectomy cystotomy, the passing of sounds,a nd in all surgical interference of the urinary tract, also during the course and following recovery from typhoid fever.

When a cystitis has been established Cystogen will be found effective in rendering the urine clear and non-irritating and an important adjunct in restoring the organ to a normal condition. The dose in these cases should be increased to gr. v four times daily.

As a remedy in diseases of the mucous surfaces, S. H. Kennedy's Extract of Pinus Canadensis has successfully passed through the crucial test of practical experience. Recent observers have given it a place far in advance of that class of mineral astringents which have hitherto held a front rank in the treatment of mucous discharges, "especially vaginal and urethral," sores, ulcers, piles, sore throat, nasal catarrh, dysentery, diarrhea, and hemorrhages. While not altogether a new remedy, medical text-books have nevertheless, thus far considered it in a very brief and cursory manner, and the great favor it now enjoys among those who have used it, has not yet extended, we believe, throughout the medical profession in its entireness. A knowledge of its merits should be, therefore, more thoroughly disseminated, since an intimate acquaintance with its virtues means an improved method of treatment of disease heretofore particularly obstinate and intractable.

Samnetto in Prostatic Hypertrophy with Vesical Complications.

I have waited to express my opinion until I had a case in which I might apply the critical or crucial test to Sanmetto. Finally one of prostate hypertrophy with serious vasical complications was presented, in which, having employed Sanmetto, both my patient and myself are much more than pleased with results. Henceforward Sanmetto goes into my armamentarium for all such and similar cases.

J. Newton Smith, M. D., Bartow, Fla.

Sanmetto in Urethritis and Enuresis.

Having had elegant results from the use of Sanmetto in genito-urinary diseases for quite a time, I am more fully convinced of its curative properties since having had a boy, aged twelve, call at my office, who was suffering from an obstinate case of urethritis with enuresis. He stated that he had consulted two or three doctors, with no relief, and if he could be cured, cure him, and if not, not to give him anything. So I put him on the following:

℞. Oil Santali 3ii
Sanmetto Q. S. 3iv
Sig. one drachm

every four hours, with rest in bed, and proper diet, and in ten days he was well and had no symptoms of either of the above troubles. Henceforth I shall know where to get a specific for such cases. I have always had good results from Sanmetto.

Wyatt C. Hatcher, M. D.
Brunswick, Ga.

Sanmetto in Enlarged Prostate Complicated with Cystitis.

Dr. J. M. Minick, of Wichita, Kans., Pres't. of the Kansas State Board of Health, reporting his experience with Sanmetto, says: "I do not explain the action of Sanmetto from any ulterior motive or for publication any further than I candidly believe it is a god-send to men who are afflicted with enlarged prostate gland complicated with chronic cystitis, with a constant desire to micturate, especially at night."

Neurasthenia

"I am pleased to report the success I have had with Neurosine in the treatment of a number of cases of Neurasthenia. It produces a quieting and soothing effect almost immediately after first dose. Its administration causes no detrimental after effects. I would not consider my armamentarium complete without Neurosine."

S. F. Hodge, M. D.,
60 Clifford St., Detroit, Mich.

At the annual meeting of the Board of Governors of the Presbyterian Eye, Ear and Throat Charity Hospital, Baltimore, the Medical Executive Committee which has managed the medical affairs of the institution for the last four years, consisting of Drs. Herbert Harlan, Hiram Woods and Francis M. Chisolm, was re-appointed for this year, with Dr. Herbert Harlan as Surgeon-in-Chief.

Dr. Julian J. Chisolm, who founded the Hospital in 1877, and for twenty-two years was its Executive Surgeon, retired in 1899 Since his retirement the medical management has been conducted by this Executive Committee.

The Charlotte Medical Journal.

VOL. XXII. CHARLOTTE, N. C., APRIL, 1903. No. 4

Hemorrhoids—With Report of Case.*

By W. B. Pigg, M. D., South McAlester, I. T.

The chief end of man is subject to piles, which often means "piles of money" to the orificial surgeon. These "ends" are difficult to get at in country practice, but once obtained, and the goal(d) reached, we seek to justify the ends according to the means.

Piles is an autocrat that plays no favorites. It is no respector of persons. It enters the palace of the king, and, likewise, makes its home 'neath the gables of the cotter's humble breeks. Ma ladie in her scented boudoir, applies rose unctions to her nether parts, and views the vandal reflected in a silver mirror. Anon the short piped crone anoints herself with pitch, and draws poor solace from a flask of gin. Mi lord, his honor, on his seat of State, doth squirm and scratch his seat and nate; and cuss beneath his breath and say, "These piles will be my death some day." Patrick, toiling upward with his hod, doth sore complain, and mutter, "Oh, my God! if only piles were made for rich instead of us, who hate the likes of sich, I'd be so glad; ah, me! bedad, it's bad!!

Piles are of three kinds—external, internal, and eternal—the last named may accompany either of the other two. There is also a species, formed by grafting the first onto the second. External piles are little tags of skin at the edge of the anus, which, upon occasion, may inflame and become extremely sore and painful; internal piles originate from the mucous membrane inside the rectum, and seldom cause trouble until they begin to protrude or bleed after which life is not so full of joy as it was, nor does the patient have to put airbrakes on his mirth to keep it from running away with him. At this juncture, if he be wise, or blessed with prescience, or takes advice, he will hie him quickly to a medicine man (one not afraid to cut, and who believes that salves and paliatives are a delusion and a snare) and get rid of this bad thing at once, and forever afterwards be happy. But, if like many in his day and generation he be foolish, then he will not heed my warning but continue his downward course to wretchedness, misery and despair.

Medical men, I do not overdraw the picture. We all know these cases. In the halls of the great, we see the grand hailing sign of distress, given by slyly slipping the seal-ring hand underneath a swallow-tail, and pushing gently but firmly upwards. In the rural districts—behind the barn—the court of arms, is crossed cobs couchant on a mass of gory feces.

The freemasonry of piles makes all its victims akin. They know each other. They fraternize freely—discussing their ills on street corners, in the parks, and at camp meetings. Each has an infallible remedy that all the others are anxious to try. They discuss the latest advertising literature, and tell each other how much their cases have cost them. They are determined not to be humbugged, but just the same they are perennielly plucked by that peripatetic gentleman in plug hat and whiskers, who "cures (?) piles without cutting, pain, or detention from business."

The causes of piles are many, constipation heading the list. Sedendary habits, occupation, the pill habit, over-indulgence in food or drink, and "fighting rebels," as a glance at the pension lists will show.

The treatment of external piles is to excise them, using a local anæsthetic, closing the wound with catgut, or leaving it to granulate. Internal piles are best removed under a general anæsthetic, by the clamp and cautery—divulsing the sphincter. The paliative *daliance* of this disease, consists in the application of embrocations containtaining an astringent and a local anodyne. By-the-way, one of the best temporary makeshifts, is for the patient to get into a bath, temperature of a hundred, and lie there from a half to three quarters of an hour. This will relieve the congestion, equalize the circulation, and stimulate absorption, affording considerable relief. I mention this because I have not seen it in any of the books. If a full bath cannot be had, perhaps the next best thing is to "steam." This practice, now almost obsolute, was formerly greatly in vogue. The method is to have the patient sit over a bowl or jar, into which boiling water has been poured. I have known it to give great relief. I hope, however, that none of you will ever attempt to give it in a manner that I once saw. When a boy, back on the farm in the States, one of the young men who was employed there had a "touch of the piles," asked the village doctor what to do for it. The disciple of Escalapius laconically replied: "Steam 'em." Such was the interest taken in rectal diseases in those days. The boy came home, marveling at the doctor's words, and that night, out in the cabin, we discussed as to "how we'd steam John." One bright rustic mind

* Read before the Indian Territory Medical Society, Muskogee, Dec. 3, 1902.

conceived the idea of pouring water on a hot rock. Accordingly, we heated a rock to white heat and rolled it out on the hearth, whereupon John with shirt-tail at half-mast, squatted over it; a gourd of water was then dashed upon the rock and—and—the next thing I saw of John he was flying through the air like the braggard who jumped at Rhodes. In my frog hunting days, on the banks of the Kentucky, I have seen that batrachia leap incredible distances—but never did I see one vault with the alacrity and enthusiasm that our friend displayed upon this occasion.

Whether or not piles may be cured in their incipiency, without an operation, is a question upon which but little has been said or written, I believe, that, with proper care and treatment, the disease may be delayed, but not completely eradicated. This is the proper field for the so-called paliative treatment; but when the disease has passed from the stage of "threatened piles" to the "real thing," it is time that radical measures were inaugurated.

I had intended to report, at this meeting, several cases of piles operated upon, but for want of time, I shall have to limit myself to one. As this case "kept me jumping side ways" for about three weeks, I beg to submit it. The case was that of a physician, aged 32, married, family history, good. For the past two or three years, he had noticed an increasing tendency to bleeding at stools, and the escape of two or three small tumors from the rectum, that would ooze blood until replaced. Of late, these symptoms had greatly increased, the tumors becoming larger, always appearing at stool, and frequently after standing awhile, or on exertion. An examination disclosed a mass of dingy red piles protruding, some of which were ulcerated. The case was diagnosed internal hemorrhoids of the venous variety, and a radical operation decided upon. Accordingly on September 12th, the patient was prepared, in the usual way, for the operation. A cathartic had previously been given, the bowels emptied, the rectum irrigated, etc. The anæsthetic was chloroform. When thoroughly anæsthetized, the sphincter was gradually but fully dilated with thumb and fingers, the rectum was everted, the piles caught up with forceps, clamped, excised with scissors, and the stumps cauterized with the paquelin cautery. The operation was devoid of incident, save that we encountered two small spurters, which we ligated with catgut. After checking all bleeding, the rectum was irrigated and packed according to a plan of my own, which consisted of introducing a condom over a speculum, and after opening it, catching the bottom of the condom with forceps, pulling it down and cutting it off. One or two soft rubber tubes were then introduced for drainage, and the space around them packed with iodoform gauze. Cotton and a snugly fitting T. bandage were then applied. The operation consumed about thirty minutes, and we were preparing to remove patient from the table when he collapsed completely. Whether this was due to a depression of the pneumogastric following the chloroform or to a disturbance of the sympathetic, through the rectum, I cannot say; but we "got busy" at once, and, with artificial respiration, and stimulants, brought him around; after which he was put to bed, and surrounded with hot water bottles. He suffered with nausea for some hours afterwards. On Sunday, the second day after the operation, I removed part of the gauze packing, and Monday the remainder, washing the bowels out with a boric solution. Tuesday the bowels moved nicely, stools being well formed and healthy in appearance. There was no pain or prolapse. I felt that my patient was cured. Wednesday morning I was summoned hurriedly to find that the patient had suffered a copious hemorrhage, which he informed me had begun about 3 o'clock. After my arrival he passed another dejection of blood, which I estimated at about one quart. As the patient's rectum was too sore to bear the speculum, I summoned help and soon had him on the table again, and anæsthetized. Upon opening the anus, quite an amount of blood gushed out, but, for the life of me, I could not determine its origin. It appeared to come from everywhere, and in goodly quantity. The patient did not bear the anæsthetic very well, and I was short-handed, being able to get only two doctors at such an early hour, and, under the circumstances, failing to locate the bleeding, I hastily took a couple of purse string sutures around the whole of the tumor masses, and repacked with iodoform gauze, as before.

After two very comfortable days, in which we congratulated ourselves, and took much unction to our souls, were shocked to find blood again soaking through the dressings. I was at a loss to account for the bleeding, as the packing had not been removed. At the suggestion of one of the doctors, who was with me, the packing was removed and the rectum swabbed with monsels solution, after it was again packed with gauze strips soaked in vinegar. A grain of opium was ordered every 2 or 3 hours. Again we felicitated ourselves that the hemorrhage was under control. This happy condition continued for two days, when the red flag of our despair again appeared on the ramparts of the dressings. Matters

were growing desperate. The patient's pulse was 120, and weak. We were becoming demoralized. The undertaker's chances seemed never brighter. Placing patient on his side, (he was now too weak to offer much resistance) I hastily withdrew the vinegar-soaked dressings, washed the debris of monsels out, and then systematically packed the rectum, as high up as I could reach, with discs of absorbent cotton squeezed out in a 20 per cent. monsel solution. I felt that I had at last fixed that gut so that it could bleed no more forever, and I fell asleep dreaming how easy it was to stop a bleeding rectum if one only knew how. But the "best laid plans of mice and man gang aft aglee." The next day, the eleventh after the operation, was Monday, and blood the order thereof, for again the gory monster showed himself to mock my efforts, this time I did not pack, I had not heart to, but, pushing the gauze aside, I introduced a small speculum, and again plied that rectum with pledgets of cotton, soaked in diluted monsels until it seemed that I had a solid pillar of cotton from the sigmoid to the external sphincter.

The prostration of our patient was now extreme, and I fancied that the keeper of celestial harps must surely be getting one in tune. The hemorrhage, however, did not return, but toward the second day, the dressings began to smell dreadfully, and, by six, o'clock, the sick room smelt like a morgue that had run out of ice. I was in a quandary. I was in the position of the man who had caught a bear by the tail just as he was going into his hole, not knowing whether to hold on or to let go. To remove the dressings, would invite hemorrhages; to leave them in, might bring on sepsis. I "sawed wood" while another day was passing. The patient felt better but the odor was something horrible. Soaring vultures stooped in their quarry of the desert, and people held their noses as they talked with us over the telephone. A council was called, and it was decided to remove the packing cautiously, a piece at a time, looking carefully for the hemorrhage the while. One of the gentlemen hypnotized the patient, and the packing was removed. No hemorrhage appeared, and, after satisfying ourselves that we had nothing to fear, the bowel was irrigated with a saline solution, and a small gauze drain left in. Three days later this was removed, and again we irrigated; but there was no more hemorrhage. There was some ulceration and sloughing from the styptic, but not nearly so much as we had expected, and, after a few applications of argenti solution, we dismissed our patient, and he gradually treaked his way back to health and happiness.

I have taken special pains to report this case as fully as possible, because I think it a very unusual one. As to the cause of the hemorrhage, I am still in ignorance, as I am, also, at a loss to know why I failed to check it by following the rules laid down in the books on this subject. It would appear that the blood in the ligated vessels failed to coagulate; and that later the cutting away of my purse string sutures opened up other bleeding areas. But, if this were true, why did not direct pressure by packing stop it? It may have been, too, that the contraction of the sphincter, which was beginning to recover itself, dislodged the dressings despite my T bandage. Then, the possibility of an ulcer higher up the bowel, claimed some advocates among the gentlemen associated with me, but this appeared to me unlikely. One imagines it an easy thing to locate a rectal hemorrhage. The technique is plain. Introduce a speculum, see where the blood comes from, and check it. Theoretically, I know of nothing easier. Practically, it is somewhat different. You have a patient, sick and sore. He refuses chloroform, or you deem it unwise to give it, the speculum hurts dreadfully; the position and light are bad; the rectum is filled with blood; you swab it out, or irrigate and look. Fortunate indeed is he who is able to locate the origin of the hemorrhage and check it. More frequently he will have to content himself with packing the rectum and awaitiug developments.

The monsels is a very efficient styptic: but it is dirty and unsurgical. It forms a black deposit that soon decomposes, and becomes very offensive. The supra-renal extract I think is better, but it was not at hand at the time we needed it.

The clamp used was a Smith. They do not approximate as evenly as Gant's, and there is a tendency for the pile to crawl out of the grasp of the instrument at its distal end. Possibly this may have been the cause of our hemorrhage during the operation. I believe, also, that it is better not to pack the rectum after an operation, although I have always done so. I have operated on like cases several time, removed the packing on the third day, and dismissed them on the fifth.

Now, under these circumstances, what would you have done? Mathews advises, "not to waste time hunting for a bleeding point, but pack." I packed. Besides, I invented all manner of things, only to find them useless, for instance, I made a double cone by wrapping a rubber-tube with absorbent cotton. When finished, it resembled an Arkansas yam. I soaked it in

monsel solution, and tried to introduce it, but it would not go. It was too long, or too large, or too somethlng—I have forgotten what. It reminded me of the fellow who angered a certain potentate by bringing pineapples as an offering, and the enraged ruler ordered the servants to use them on his hapless subject as though they were suppositories. I simply mention this as an example of the many devices, both mechanical and chemical, that I attempted in my mad efforts to save my patient. And now I close, asking your indulgence upon the tedious narration of details I have given, and I trust that we may be able to derive from this discussion something that will be helpful and practical.

Some Points in the Treatment of Functional Disorders in the Sexual Organs of the Male.*

By Frederic R. Sturgis, M. D., of New York, Formerly Clinical Professor of Venereal and Genito-Urinary Diseases of the Medical Department of the University of the State of New York and Visiting Surgeon to the Charity (now City) Hospital, Blackwell's Island.

So much confusion exists in the minds of medical men concerning the treatment of functional sexual derangements in the male, that I have thought a paper on this subject might perhaps prove interesting, not only to specialists in this branch, but also to the general practitioner, who himself, sees more or less of these cases, and who often times is inclined either to slur their importance in a hygienic and therapeutic sense, or else, in attempting treatment, to do the worst thing that could possibly be done for them.

In order to make the subject clear at the start, let me state what the meaning of functional disorders of the sexual organs mean, so far as the purpose of this paper is concerned. They are derangements of the sexual organs which interfere with their proper functions in the matters of coition and procreation. And I shall limit what I have to say more especially to a lack of sexual and to a lack of procreative power. And first, as regards the lack of sexual power.

Let me review the principal causes which occur to produce this class of derangements, and in this class there is one which has been considered as especially responsible. The older writers, and many of the more recent ones, have been peculiarly prone to consider masturbation as the prime cause of sexual debility, and they have so taught, the tradition being handed down from father to son so religiously and so strongly, that it has become almost an article of faith in the minds of most doctors.

My own experience in this country has been that masturbation plays a very small part in producing sexual debility, for the simple reason that American youth, and by that I mean of the male sex, masturbate comparatively infrequently, and rapidly give up the habit. They do not abuse themselves in this manner nearly as much as the youth of the Continental countries do, according to the dictum of medical practitioners in those countries; but still, masturbation does play some part, although a minor one, in the production of this class of disease.

Another cause which has been heralded far and wide as a cause, is that of withdrawal; that is to say of not finishing the copulative act *in vaginam* but *extra vaginam*, or else leaving the act uncompleted. Of these two methods the latter is far more dangerous and the more productive of trouble, for the congestion produced by the erection and by copulation is unsatisfied and is apt to be more or less permanent and to produce more or less disturbance. The former is the less injurious because the relief obtained from the emission is much the same *extra as intra vaginam*, and in this form of sexual amusement as well as in that of masturbation, the danger lies more in the excitement, without the corresponding gratification, than in the act itself.

The next cause for this condition is a devotion to the opposite sex which is pursued not wisely but too well, and where the man abuses not only his own sexual functions but the gift which has been given him in the person of the opposite sex. In other words, he uses up both himself and the woman; himself, if anything, rather more, for the average woman has but little gratification in the act, is the passive agent, and can stand far more abuse in this line than the male, although we are informed by gynecologists that many of the uterine affections in the female are induced by an unsatisfied sexual desire, and this again, is produced by the male performing the act too rapidly, long before the woman has had time to enjoy the orgasm herself.

Last of all come the so-called psychic causes; that is to say mental disturbances or neurotic impressions (neurasthenia) which by distracting the attention of the male from the work in hand, prevent either complete erection or satisfactory coition in case an entrance is effected. These in their pure and simple forms, I believe are very

* Read before the Ninety-seventh Annual Meeting of the Medical Society of the State of New York.

rare, where they are not associated with some physical cause underlying the mental state. There are cases where almost complete impotence has resulted from a man allowing his mind to wander from the business, to which he should give his entire and undivided attention, by thinking of something that happened during the day, be the same of a serious or comical nature, exemplifying the old adage that a person cannot properly do two things at the same time. He cannot think well and copulate satisfactorily. Now, in a very large proportion of cases, there is some physical underlying cause for this condition and the German writers are inclined to regard gonorrhea as responsible for about ninety-five per cent. of these cases of sexual disturbances. Personally, I think their percentage is too high, for it does not follow that because there is a history of old gonorrhea in a sexual cripple, therefore gonorrhea is the cause. But I am constrained to admit that a good proportion, perhaps fifty per cent. may be accredited to gonorrheas which have remained uncured, and by uncured I mean as regards their ultimate results, for we must recollect that gonorrhea is by no means the simple, and local disease which we have been in the past accustomed to regard it. It is a real and serious matter, fully as serious as its congener, syphilis, which has received a bad name, and perhaps not unjustly, but which, nevertheless, should not be regarded as the more serious of the two.

The physical cause is the stricture which results from an uncured clap, which is perhaps one of the commonest reasons for the existence of this condition of sexual paralysis, and while *a priori*, it might be regarded as almost impossible that such should be a cause, experience teaches that with the relief of the stricture and the irritation consequent upon it, the sexual disability is relieved.

Another frequent cause, perhaps running a very good second to stricture, is the presence of granulations, either with or without congestion of the urethral canal, and this also produces not only a lack of erectile power, but also a prematureness of ejaculation which robs the copulative act of its pleasure, and transforms it often times into a duty to be performed, rather than a pleasure which is looked forward to.

Given then, these conditions as among the principal causes of sexual debility what has been the aim of the average practitioner as regards treatment? The name commonly given this form of disease is sexual weakness or sexual debility; and so, on the principle of curing the disturbance by strengthening the weakened parts, he goes to work to stimulate the organs, under the impression that they are weak and require stimulation, which is about as successful as applying the whip and spur to a tired-out horse. With both the horse and the penis, the need is for rest. Sedative should be the keynote then in the treatment.

Now, how shall the sedative be applied? The majority of persons seeking relief and a very respectable number of medical men seem to think that medicine taken internally is the only thing which will cure this class of diseases. Hence all kinds of remedies are exploited, from damiana, which the advertising charlatan has claimed to have been used by King Solomon, down the entire list, including Yohimbin, the animal extracts, phosphorus, strychnia and a host of other remedies all of which are held up as the only panacea and cure-all of sexual disturbances. My experience teaches me that is a most fallacious basis upon which to treat these disturbances. Medicines, if given internally, are only useful as adjuvants, and cannot be relied upon in the treatment of this class of disease. Local applications and local remedies are the things which really do the work, and these vary from applications of the various preparations of nitrate of silver, than which there is no better drug in our armament against this class of disturbances, to the use of sounds, hot and cold irrigations, either *per urethram* or *per rectum*, and of these the hot are generally more efficacious than the cold. But whatever the course adopted, I want to impress upon the minds of my hearers this fact; that the use of the sedative is of far greater advantage than the use of a stimulant, and the idea that nitrate of silver and their derivatives are stimulants is a mistaken one; they act as sedatives although they may appear to operate to a certain degree as irritants at the commencement.

As regards the question of the treatment of sterility, there is, alas! but little to be said and that little amounts to admission that little *can* be done. Probably ninety per cent. of the cases of sterility occur from an old inflammation of the epididymes, and their consequent blocking up, preventing the passage of the spermatozoa into the urethra. But inasmuch as the bulk of the semen is made up of secretions of organs independent of the testis, the emission is just as abundant as in health, but the semen is no longer fruitful. For this condition of affairs there has been practically no cure discovered, notwithstanding the ingenious operations which have been done from time to time by surgeons of various countries, looking towards the excision of the blocked-up portions of the vas deferens and the for-

mation of a new canal which will permit the passage of spermatozoa into the urethra. A few cases have been said to have been successful, but this may be doubted on the principle that as one swallow does not make a summer, so one spermatozon does not mean fecundity.

Where on the other hand, the sterility appears to be due either to a too thick condition of the semen or to a scarcity of spermatozoa from sexual abuse, this condition may be easily remedied, but the number of cases where this occurs is, comparatively speaking, rare and so is really not worthy of serious attention.

One other method of treatment which has been much lauded, especially for sexual importance. either from lack of erection or from premature emission is electricity in one of three forms of Faradic, Galvanic or the Static current. So far as my own experience is a guide, I am obliged to confess disappointment in the good derived from the electrical current. Of the three, I am inclined to consider galvanism given in weak currents, and frequently administered as being the most useful. The Faradic is the worst.

The question of drink sometimes enters largely into these cases and it is well to remember that in a sexual cripple, as in a cripple from venereal diseases, the use of stimulants should be interdicted, and that interdiction should extend not only to alcoholic and fermented stimulants, but also to coffee the use of which, why, I do not know, seems to have a bad effect upon the sexual powers, when they are damaged in any way, and in addition, as I have already stated, the excessive use of alcoholic drinks, especially spirits is detrimental. Indeed, it may be put down as an aphorism that the chronic toper is a poor bedfellow. He is incapable in more ways than one.

In the treatment of this class of diseases, it is exceedingly difficult to impress patients with the fact that you cannot treat them at a distance merely by sending them a prescription for medicines. Of course, if we are willing to descend to the methods of the advertising charlatan, we can humbug them to the utmost, dose them with medicine and leave them at the best no worse off than they were before. And I sometimes wonder, my brother doctors, when I regard the multitude of fools who fuss and potter over their sexual organs and their sexual conditions, whether it is worth while to try and prevent them from humbugging themselves. The caustic old Roman was not far wrong when he said: "Populus vuit decipi; decipiatur ergo," for people really love to be humbugged provided it is done properly and not too boldly, as I think the high priest of humbug himself admitted when, having retired from business he described the manner in which he wheedled the tardy dollar from the pockets of an easily gulled public.

16 West 32d St., New York City.

Adenoid Hypertrophy.*

By Clarence Porter Jones, M. D., of Newport News, Va., Oculist and Aurist to the Newport News General Hospital, Dixie Hospital, Hampton, Va., The Hampton Normal and Agricultural Institute, U. S. Special Pension Examining Surgeon, Member of Various State and Local Associations, etc., etc.

Upon observation of the fact that a large percentage of the children along the Atlantic Seaboard are mouth-breathers, we naturally have our attention turned to a close study of at least one of the most prominent factors in the cause of this unfortunate condition. Since more light has been thrown upon this subject, and the old baneful belief that the nose was only an organ of olfaction, is replaced by a true conception of its physiology, we realize keenly the importance of this subject.

The function of the nose briefly stated in the order of their importance are (1) respiration, furnishing a passageway for air in breathing. moistening and filtering the same. (2) olfaction, (3) phonation, (4) ventilation of accessory sinuses and ears.

The persistent dryness in the throat of a mouth-breather, especially upon awaking in the morning, convinces us per adventure that this is not the passage-way intended by nature for air in inspiration, and that mouth-breathing is distinctly a pathological condition, giving rise to many injurious results. Cold, dry, dust-laden air finds a ready access to the lungs without being first warned, moistened and filtered of its offending matter, and acts as a continuous irritant to the entire bronchial apparatus. At the same time the air in the nose and post-nasal space is rarefied, thereby favoring congestion and hypertrophy of the tissues.

The adenoid body, third, pharyngeal, or Luska's tonsil is situated in the vault of the pharynx, or post-nasal space, above and between the eustachian tube orifices, and above the opening of the posterior nares.

Its structure consists of lymphoid tissue with a scanty blood supply, soft in consistency, gelatinous in feel, lighter in color than the fancial tonsils; its surface is furrowed and covered with stratified columnæ epithelium, with a few cilia. The bulk is made up of lymph cells arranged in nodes,

* Read before the Elizabeth City County Medical Society, Hampton, Va., Jan. 19th, 1903.

with internodal spaces, scantily supplied with a low grade form of connective tissue, which of itself is fairly supplied with blood.

This amount ot connective tissue bears no exact relation to the age of the patient, though the mass is unusually harder in adults.

We see from a study of its anatomy that it is a tonsil, with less connective tissue than either the faucial or lingual.

Ætiology.—This condition may be congenital. Scrofula, syphilis and tuberculosis may be mentioned among its predisposing causes.

Heredity plays some part; also the so-called lymphatic tendency of some families The 3rd tonsil is believed to be more susceptible to enlargement than any other lymph tissue of the body. And like other lymph tissue when once inflmamed, is ever less resistant to inflammation and more liable to hypertrophy.

Climate has a most decided influence in its production, being much more frequent in cold, damp countries, with changeable weather, than where the atmosphere is warm and dry. Among the more prominent exciting causes are catarrhs of the nose and naso-pharynx, diphtheria and the exanthemata.

Pathology.—The patholgy is that of a simple hypertrophy, merely an overgrowth of a normal histological element of the mucosa in this situation, with spreading of this lymph tissue about on the walls of the naso-pharyngeal space, and often into the pharynx which can be seen by looking directly through the mouth. This is not an adventitious deposit, as was formerly thought. There is a preponderance of the cellular elements giving to the growth a soft jelly-like consistency, and its possession of a furrowed surface has caused the guesome comparison to the feel of the finger of the surgeon, to be like that of a bag of earth-worms. As before mentioned, the main difference in the histology or pathology of this from the normal or hypertrophic condition existant in the other is the lesser amount of connective tissue in the adenoid.

Therefore it furnished less resistance to inflammation than the others. This reason is why the 3rd tonsil is so much more liable to hypertrophy.

Symptoms.—The most marked symptom is mouth-breathing, especially at night, snoring while asleep, restlessness. The child often arouses, turns over and pushes away the cover. Other possible symptoms are nose-bleed, night terrs, nocturnal enuresis, aprosexia, night sweats, deadness of voice and cough.

In marked cases the face has a dull heavy expression, the nostrils pinched, eyes bleary or stupid, the bridge of the nose broadened, and the palate arched. A discharge in many cases from the nose and ears.

The mouth-breathing, comes from the obstruction at the posterior nares, in the vault of the pharynx. The snoring ensues upon relaxation of the soft palate, which by increased congestion when the body is in a horizontal position is naturally accelerated during sleep.

The aprosexia is due to there being an intimate connection between the tonsillar ring of the lymphatics with those of the base of the brain, causing a high pressure and sluggish circulation, affecting the functional integrity of the higher centres.

For this reason these children are usually in one or more grades lower in school work than other children of their ages, and are not usually apt in their recitations. Many a child has been stigmatized as a dunce, and chastized for missing a lesson, when it was beyond his power to sufficiently concentrate his mind upon it to master it.

The deadness of the voice is due to the fact that when the sound waves are transmitted up from the larynx, they meet with interference to their vibrations when they reach the naso-pharynx, which is Natures "sounding board." The cough is due to pharyngeal irritation, either from mouth-breathing, or secretion detached from its vault.

Night terrors are believed to be due to overloading the blood with carbonic-acid gas, and the resulting nervous explosion.

Complications and Sequelæ.—Its complications and sequelæ, especially the latter are grave. We will name them in the order of their importance. (1) Purulent Otitis Media. The third tonsil being by anatomical position near the mouth of the eustachian tubes, air constantly brushing this body and forcing its secretion into the tubes and back into the middle ear, thus we have an obstructed entrance to this cavity, of a host of harmful bacteria, and poisonous decomposing secretions. (2) Chronic Catarrhal Otitis Media. The enlarged pharyngeal tonsil often impinges the mouth of the tube, thus rarefying the air in the middle ear, causing retraction of the membrana tympani, and congestion of the lining membrane of the cavity due to lack of pressure, with resultant catarrhs, thicknings, and ankylosis of the ossicles. (3) Diseases of the accessory sinuses. The nasal cavities being continuously bathed with septis secretion, there is existant a constant liability to infection gaining access to the maxillary autrum, frontal and sphenoid sinuses, and ethnioid cells. (4) An intractable catarrh, nasal and post-nasal which can never be

cured until the offending body is removed. By the anterior nares the discharge often excoriates the skin around the nostrils, causing a troublesome eczema; and by the pharynx, is a continual dropping into the larynx and mouth, of unhealthy secretions. (5) Hypertrophy of the soft palate. Even with a partial obstruction nasal breathing will not ensue unless the patient is conscious of the fact. Especially is mouth-breathing then a natural consequence, and in it, we have a constant irritation of the soft palate by the column of air striking its anterior surface in inspiration, and its posterior surface in expiration, thus keeping it in a constant state of vibration and a hypertrophy ensues from the prolonged irritation.

Diagnosis.—The quickest and a reliable method of diagnosis is by a digital examination, which is conducted as follows: The child sitting on the left knee of an assistant, with its back to the assistant's left. The surgeon standing behind the child causing it to lean its head on his left breast, with the thumb of his left hand he prys open the mouth by forcing the left cheek between the jaws, his right index finger is inserted with its palmar surface toward the roof of the mouth, behind the palate, up along the post-pharyngeal wall until it reaches the roof, and the growth can be distinctly felt, of a soft lobulated character, the so-called earth-worm-like feel. Upon withdrawing his hand he will usually notice a tinge of blood on his finger, as the growth readily bleeds upon the slightest irritation, while the normal third tonsil and other structures in this region do not bleed unless undue force is used in the examination. In this method, the examination is conducted with little if any pain to the child. Many of the cases can be diagnosed at sight by the symptoms, especially the peculiar facies, open mouth, pinched nostrils, dull heavy expression, etc., suggesting the nature of the trouble.

The rhinoscopic mirror is the most positive diagnosis from the standpoint of accuracy; but to use this instrument satisfactorily, like the ophthalmoscope, requires months or even years of careful training and practice. And to the busy family doctor, or general surgeon of to-day the lack of time to keep in practice makes this instrument of no material profit to him.

It is possible for syphilitic tubercular and other lesions to mislead the surgeon in his diagnosis; but it is highly probable that a history, and other manifestations, together with the microscope will clear up the mystery.

Prognosis.—We are often asked if this growth is left alone, is there any liability to permanent injury? Our answer is most emphatic in the affirmative.

Even in slight cases there is danger of permanent damage to the organs of hearing, by setting up a purulent otitis media, with all its train of ills, as perforation and irreparable damage to the drum and middle ear, aural polypi, a chronic foetid discharge, irritating the auditory canal and auricle, mastoiditis, necrosis of the bone, sinus and jugular thrombosis, facial paralysis, etc., or a chronic catarrhal otitis media, with as before mentioned, a more or less complete destruction of the sense of hearing. Until recent years the adenoid hypertrophy was thought to disappear wholly at puberty, but it is now known without doubt that this is not at all certain; a reduction to some extent usually does occur; but the exceptions to the rule are legion. Even if there is a complete return of the adenoid to the normal size at this period, the above mentioned troubles have more likely been already set up perhaps 5 or 10 years previous.

Conner, of New York, after a careful review of the world's hospital records, says that 73% of all middle ear diseases are due to this trouble; and that the number of hopelessly deaf subjects are decreasing year by year as this malady is being better understood by the laity.

The immediate dangers are the increased liability to any contagion, which may surround the patient, diseases of a functional nature, defective mental development and deformities which have already been pointed out.

Says Newcombe: "There is no operative procedure in the whole domain of this branch of Medicine attended by happier results, than is that for removal of lymphoid hypertrophy in the vault of the pharynx. The child is physically almost born again. Dull intellects brighten, deaf ears are unstopped, phonation becomes clear and distinct. Mouth-breathing disappears. In short, the child is almost a new creature."

A happy fact is that this trouble rarely returns when once thoroughly removed. The removal of the third tonsil, directly speaking is incorrect, as this organ is within the mucosa of the pharynx. It is the removal of the hypertrophy, which we hold is the correct term.

Treatment.—Any attempt to cure this trouble by medical treatment will always result in a failure. The use of topical sprays, applications, caustics, etc., afford only temporary, if any relief. Any underlying dyscrasia should be sought out and treated.

The only method of real value is its thorough removal by surgical means. In

children over 12 and adults, cocain anæsthesia usually suffices.

The operation is done at some throat clinics without the use of any anæsthetic; but only where a trained assistant is at hand to hold the child.

This practice being popular at the Throat Clinic of the New York Eye and Ear Infirmary. Unless such an assistant is at hand there is danger of doing serious damage to the soft palate, on account of the struggles of the child. The safer procedure in operating on children is to give a general anæsthetic; in this case the dangers are strangulation by blood and pieces of the adenoid entering the larynx. The hæmorrhage is usually copious, though not alarming, for a few minutes, the loss of blood being from 3 to 12 ounces.

In the choice of anæsthetics, there is no great superiority in chloroform over æther or nitrous oxide gas. Though we are somewhat partial to chloroform. In case either one is used, only the primary degree of anæsthesia is necessary; for in this stage blood dropping in the region of the apiglottis, or into the mouth, the patient will cough and spit or swallow, and thus prevent the entrance of much blood and tissue into the larynx. If complete anæsthesia is desired, as is the practice of many surgeons, the child's head should hang over the end of the table, and the blood allowed to flow through the nose and mouth.

The instruments necessary in this operation, each of which there are several good patterns, are:

A mouth-gag, with a spring catch controlled by the thumb. A pair of forceps, embodying the biting principles of the old Lowenberg pattern. A curette, our preference being the Gottstein, of which there are 3 sizes.

A tongue depresser which is made in one piece. A snare, with a straight and a curved tube. The one which was modeled by Dr. John Dunn, of Richmond, is in our hands the most satisfactory. A tonsilitome, should be at hand in case a tonsilotomy is to be done in conjunction with this operation. One with a sliding blade pushed by the thumb like the McKenzie is considered the safer.

After anæstheizing, the mouth-gag is put in place, between the left jaws.

Then the tongue is depressed, and the chosen forceps introduced behind the palate grasping the growth and removing it. The curette should then be introduced, and at least three long sweeps made from above downward, one along the median line, and one or more on each side, of the pharyngeal wall, beginning at the roof. The child is then placed preferably on the right side, if the surgeon be righthanded to allow a free escape of blood. The vault of the pharynx should then be thoroughly explored with the index finger to determine if every part of the growth is removed, which should be done before the operation can be considered completed.

Immediately after the operation the vault can be irrigated with a mild antiseptic solution, further treatment is unnecessary. There being practically no after treatment.

The patient for the first 24 hours will find ice cream, cold milk and the ices grateful.

If a tonsilotomy is done, it should immediately follow the adnectomy. And the snare with the straight tube or the tonsilitomy is used for this purpose. Another use of the snare is, with the curved tube, it is especially good in removing the adenoid when it is lobulated.

118 Thirty-second Street.

Diphtheria.*

By O. C. Kessler, M. D., Ravenwood, Missouri.

Gentlemen:—I will endeavor to give you a brief resume of diphtheria that I have seen in the few years I have been in the practice of medicine, and, without entering into an elaborate discussion of the manifold pathological forms of diphtheria, which you all are more familiar with than is within my province to enlighten or within the scope of this paper to convey to you, we will consider that only which the busy, general, every-day practitioner meets with in his routine of work.

Zieglar, in his Pathological Anatomy, says: "One of the most important forms of inflammation to which the throat is liable is diphtheritic inflammation, most familiarly known in connection with diphtheria."

We also omit in detail the various controversies that have arisen as to the nature of the virus of diphtheria. Suffice it to say that diphtheria is an infective disease, met with chiefly in children, and in years past, was considered one of the most fatal maladies of childhood. The virus enters the system usually by the mucus membrane of the pharynx and it first of all sets up local inflammatory changes there; this seat of inflammation forming a nucleus from which the entire system may become poisoned by the micro-organism peculiar to the disease, thereby converting a local disease into a constitutional disease of greater or less disturbance.

In the pharynx, the process begins with the formation of small, round, grayish

* Read before the Missouri Medical Society, Council Bluff, Ia., March, 19, 1903.

patches on a red, swollen base. The grayish film is at first thin and soft, but presently it becomes thicker and more yellowish, or, if hemorrhage takes place, it becomes brown or black. The patches may be few or isolated, or numerous and confluence, and often form large, dense masses of false membrane, owing to the severity of the case. At first the patches or masses are adherent to the underlying tissue; afterwards they are loosened and can readily be removed or are cast off spontaneously. Often the underlying surface of the mucus membrane appears intact. It is reddened, but there is no loss of substance in a case of superficial diphtheritis. In other cases, a visible erosion or ulcer remains when the false membrane is removed. This indicates deep or parencamatious diphtheritis, denoting that the necrotic inflammation has extended still deeper into the mucus membrane.

While the specific principle is ordinarily received by the inspiration of infected air, it is frequently received by direct contact of the infected matter with one of the mucus membranes not lying in the respiratory tract.

It is impossible to form any conjecture in regard to the time when diphtheria originated. Asclepiades, who lived one hundred years B. C., scarified the tonsils and performed laryngotomy for the relief of respiration, and it is supposed he treated diphtheria. Aretæus, a Greek physician of Cappadocea, at the commencement of the Christian era, gives in writings still extant a clear and accurate description of mild and severe diphtheria; after describing what he designates as ulcers upon the tonsils, covered with a white, livid or black concrete product, adds, if the malady invades the chest by the trachea, it causes suffocation on the same day.

Children, up to the age of puberty, are most susceptible to the disease and it is an established fact that diphtheria does not originate of itself, but is produced by the reception of the pre-existing, specific poison.

The extreme contagiousness of diphtheria is well known and is certainly the most highly contagious disease peculiar to children. It has been known to be communicated upon very light exposures, and, in other cases, it has been conveyed from infected rooms or clothing where patients have been treated for diphtheria weeks or perhaps mohths previously; but, fortunately for the treatment and mortality of diphtheritic patients, the greatest virulence of the contagium extends only a very short distance from the patient.

The prognosis of diphtheria varies greatly in different cases according to the type. In some epidemics, the disease is of a very mild type and recovery occurs with very simple measures, while, in other epidemics, the disease appears in its most malignant form and the mortality heretofore has been very great in spite of the most heroic treatment. In the past, physicians of extensive experience were very guarded in their expressions of a favorable prognosis in diphtheria, since there is no other disease in which the prognostic signs on which a favorable prediction is based are so likely to be fallacious.

The treatment of diphtheria has been the all-perplexing problem to solve. It has been almost as varied as there are remedies in the materia medica embracing from the local application of lunar caustic to the internal administration of corrosive sublimate, and all along the line, meeting with the one and same general, unfavorable and unsatisfactory result.

While diphtheria has been one of the most fatal maladies and considered by many to be the most highly contagious and therefore the most dreaded diseases peculiar to children, there has been in recent years a remedy introduced based upon the theory of the Klebs-Loeffler bacilli, that is destined by many to revolutionize the treatment of diphtheria. Such a remedy we find in diphtheria antitoxin, which, according to my experience, is the remedy par excellence.

We will not here dwell upon the merits of the different makes and modus operandi of the antitoxins that are placed on the market, but will give a few cases wherein it has acted very favorably for me. My personal experience in the use of diphtheritic antitoxin has been somewhat limited and experimental and confined to within the last few years, the reason for which was that I, like many others, was slow to accept measures that had not been fully proven, and, for brevity's sake, will mention the following three cases only, as they show a diversity of character in the disease:

Case 1.—A boy twelve years old, was seen August 10th. There was an extensive membrane on both tonsils, posterior naris and great faucil inflammation. Patient could not swallow even liquids and was much distressed. This was in the forenoon. I injected 10 cc. antitoxin. At the evening visit, patient was much better, the voice more distinct and the patient expressed himself as felling better, the improvement being so great did not repeat the injection until next morning, when same dose was repeated. Recovery was rapid and complete, with no sequelæ.

Case 2.—A girl, aged two years, was seen October 3rd at 10 P. M. Patient was suffering great dyspnea; throat, tonsils and posterior naris covered with thick, yellowish membrane; larynx highly inflamed and great stenosis. I injected 5 cc. antitoxin; in twelve hours patient was much improved, and in six hours more—4 P. M. next day—I injected more of the antitoxin. Patient recovered with difficult articulation and regurgitation of liquid and food through nostrils. Patient gradually improved.

Case 3.—Girl seven years old was seen October 13th at 3 P. M. Patient pallid, nervous, restless and breathing hard; grayish yellow patches on tonsils and in throat. I injected 10 cc. antitoxin and seen patient eight hours later, and, as she was resting more quietly and comfortably, did not repeat the injection. At ten next morning, patient was more restless again and appeared to not be so well. I injected 10 cc. more of the antitoxin. Patient recovered, with weakness of the knees and slight turning in of the toes, which was quite persistent, but slowly yielded to treatment.

In the above cases, such internal remedies were given and local treatment applied as was deemed requisite in each case. The cases, however, being of such short duration, I think was due to the specific treatment used and, while a degree of infection was quite extensive, the rapid yielding of its intensity shows that, in this remedy, we have a specific.

Other cases I might mention have all been reduced in virulence and this, I think, was due to the antitoxin treatment which, in my experience, has been a safe rock to anchor to.

Malaria and its Treatment.

By Dr. E. N. Wright, Olney, I. T.

This is the most common disease with which we, as physicians, have to contend. Within this Territory we come in contact with it daily, in fact four-fifths of our practice is on malaria in one of its forms, and the other fifth, if not sure as to diagnosis, is saddled on to malaria.

I choose to present this subject before you for several reasons.

1st. Being one of our most common diseases it should be most interesting.

2nd. I have attempted other than the usual treatment for several years past, and desire to give you something of my personal experience.

3rd. It is my desire to inculcate into our profession, a stimulus to the improvement of our malaria practice, and get out of the old worn-out ruts.

We all stand on an equal basis as general practitioners, and no one of us can spare the time nor have opportunity for scientific research by means of microscope or otherwise. We can, however, read the researches of others better able to do this laboratory work, and with this assistance, make a thorough completion of the etiology, prognosis and treatment of malaria.

We are now in a progresive age, and the demand is for improvement on old methods. If we continue to accept the old time worn-out practice, we will be a hundred years from now just where we are to-day. On the contrary, if we desire to advance with the times and win the approbation of the laity as well as our profession, we must be alert to new methods and ready to assist in building up an improved practice.

To do justice to ourselves as physicians, we must endeavor to thoroughly understand what we are doing, and what we are doing it for.

Meeting malaria every day of our lives, and having to treat it, naturally causes an inquiring mind to ask, What is malaria, its cause, etc.? For a great many years medical writers have attempted to define it, and from then until the present time, the definition has improved, and to-day it is the accepted theory that malaria is a parasitic disease, the germ infecting the blood; how it gets into the blood is still being thoroughly investigated, and although questioned by a great many prominent physicians, it is almost universally accepted that the bite of the mosquito is one of the prime causes, and I firmly believe drinking water another. I have for several years been very much interested in this research by such men as Surgeon Ross, Grassi, Munson and others, among whom I might mention Dr. Chas. Craig, U. S. A., director of the laboratory of the Army General Hospital, at Presidio, Cal., whom in 1901, published a very valuable report on the parasites of malaria. We are unable to deny these researches and their findings, hence must accept them. With the average practitioner, there is more indifference displayed on the cause of malaria, than any other disease with which we have to contend. It will be utterly impossible for me to go into the ætiology of the malaria in this paper, but I would ask all members of the association to take the matter up at their leisure time, and go into it fully. When we know a disease and its cause, the treatment naturally suggests itself.

Prognosis.

As a general rule, malaria is not dangerous under the proper treatment excepting the Algic form, which, however, is very seldom met with in this Territory.

Treatment.

On this point I desire to make some remarks, which I am sure will not meet with your universal approval. I expect to diverge from the prescribed rules laid down by most all authors on practice and materia medica, but I hope the members will be fair enough in the discussion to admit that prescribed rules as to treatment will change as time goes on. We are unacquainted with any prophylaxis as to malaria to-day; most of our writers on malaria advocate quinine in some of its forms as a prophylaxis and a cure. I have been faithful in this belief from 1884 to about 1896, and used it heroically. I am compelled to deny the efficacy of quinine in having the so-claimed effect upon the germ of malaria as to destroy its activity. Since I began to look into this matter, I am compelled to state that quinine is greatly overrated, and if we depend on it we will never be able to treat malaria successfully.

In fact the profession generally have been so wedded to the calomel and quinine theory that even the laity are as skilled in the treatment of malaria, as the profession. If you are called to see a case of malaria, and inquire as to what has been given, the invariable reply will be calomel and quinine. You then repeat the dose. The next time your customer will give two courses instead of one, and five times out of ten it will prove successful; they will then claim that they are as successful as the physician in handling malaria. They of course treat blindly and a physician is supposed to treat scientifically. Looking at the treatment from this point of view, and asking myself what was the true distinction between myself and these ignorant customers. I answered, there was none unless I really knew my physiology and therapeutics.

I firmly am of the opinion that we will in the near future, cast aside many of our present remedies, and will resort to the animal tissue and serum therapy which is being more extensively used every day.

When I began to look into the therapy of quinine, I could find nothing that would indicate it as a positive destroyer of malaria germ activity; in a mild attack of the intermittent types of fever, it sometimes will act favorably, but in my experience in the continued fevers it absolutely fails.

In order to get a favorable action we must push the drug, until we cause cinchonism, the effects of which are worse than the disease we are treating.

If our eye and ear specialists were to tabulate their cases, I believe that many of them would prove to be due to cinchonism. Also we are liable to have severe gastric trouble and hæmeturia, from too over-dosing of quinine, in fact the bad effects of quinine so over-weigh the good effects that we are constantly being made acquainted with some new form of quinine as euquinine, iquinine, etc. In the last few years there have been several articles in different journals, opposing the too free use of the drug. If then, quinine is a failure you will ask, what is it that causes our patients to recover with the treatment? You well know that all treatment of malaria in any of its forms is begun with calomel, and in this remedy we must, and do rely solely for success.

Malaria is due to a germ or parasite that enters the blood and attacks especially the liver and spleen, causing (if I may so express it) a partial paralysis of their physiological action, into the details of which this short article forbids me entering. This then being a disease due to a germ, and in mercury we have the best recognized germicide, then why not treat malaria solely with mercury; after looking well into the therapeutic action of mercury, we find we have everything that is needed to combat the poisonous effects of malaria. For several years I have been using this treatment, and am convinced that it is all that we need. In fact with eight-tenths of my practice being upon malaria in some of its forms, I have not used one-fourth of an ounce of quinine, and have been more successful than when I did use it. In treating an intermittent case I begin about noon, or 1 p. m. and give $\frac{1}{6}$ to $\frac{1}{4}$ grain tablet of calomel and soda, giving one tablet every hour until 6 or 7 are taken, following the next morning with salts, repeating the next day the same, and also the third day. I very seldom give an antipyretic; after the third course you will find you have stopped the chills. In the continued form of malaria fever, I continue the calomel for a longer period, or until I get the desired effect. I find the recovery of the patient after the calomel treatment alone, much more satisfactory than when I used the calomel and quinine. Of late years I have been using protonuclein as a synergist to the action of calomel, by increasing the celular activity of the liver. It is an animal tissue, and its preparation is not a single compound nuclein or protonuclein as the name implies, but a mixture of substances derived from the various glands. This is shown in the fact that it digests albumen and starch, which the extracts from the peptic, salivary and pancreatic glands will account for. That other extracts in the compound have therapeutic value is quite well established.

Using the preparation on this theory, I am favorably impressed with it as a remedial agency.

For a more thorough comprehension of

the manufacture and physiological action of protonuclein, I refer to an article written by G. W. Sherman, in the January number of the Medical Mirror for 1899.

Hyperplasia and Hypertrophy of the Uterus.*

By Charles G. Geiger, M. D., St. Joseph, Mo.

The frequent occurrence of enlargement of the uterus has been a great stimulation to the study of its underlying pathological conditions. In view of the causative influences predisposing and direct, it is not a matter of surprise that this is an affection of great frequency. Probably more than 65 per cent of all women presenting themselves for local treatment show evidence of it in some degree. The importance then of this disease cannot be over estimated.

In hyperplasia of the mucous membrane of the cervix, which is usually called chronic endometritis or uterine catarrh there is very decided congestion and hypersecretion of the glands of the cervix. As the disease advances the mucous membrane becomes thickened by proliferation of the areolar tissue and by distention of the blood-vessels, so that it becomes too large for the surface it covers; this throws it into the fine rugosities or wrinkles which give the surface a granular or papillous appearance. These projecting points were supposed by the older pathologists to be an enlargement of the papillæ of the mucous membrane, but it is now known that they are new formation due to areolarhyperplasia.

It is difficult to believe that the hyperplasia process could lead to the development of new anatomical structures of a normal character, but there is strong evidence to show that this occurs in the mucous membrane of the cervix uteri.

Sometimes the irregularity of surface due to hyperplasia is very marked, especially in cases where there is laceration of the cervix. This condition has been called "grenular degeneration" a good enough name, if it is remembered that it is produced by a throwing up of a membrane into folds or projections by an enlargement and thickening due to hyperplasia, and in fact it is not a degeneration.

The hyperæmia sometimes extends to the middle coat of the cervix, and then for a time the tissues are softened and œdematous with this condition there is usually free leucorrhœa and menorrhagia, especially, when the body of the uterus is affected, occasionally, though rarely, the menstrual function is suspended or diminished. In some cases of long standing, especially when there is laceration of the cervix the areolar hyperplasia extends to all the tissues of the cervix, and later involving the entire uterus, and after some time gives rise to sclerosis.

We all have observed that the most frequent causes of hyperæmia are puerperal subinvolution of the uterus, which may be caused by too early getting up after childbirth, small or large laceration, and uterine infection.

These are the chief underlying conditions or factors in the production of the so-called chronic metritis, or more correctly speaking increased vascularity and the beginning of hyperplasia. Anything which interferes with normal involution predisposes to this condition. The prominent feature of subinvolution is hyperæmia. This may be a chronic one, and may have an indefinite continuance. But its protraction for a long period of time is followed sooner or later by certain changes in lhe tissues of the parenchyma. At the beginning, hypertrophy of the muscular structure is found equal to that of the connective tissue.

The microscopic sections, I present for your inspection, will show a great preponderance of the connective tissue, As a result of the persistent habitual hyperæmia the tissue takes on this increased growth or proliferation. The same proliferation may follow in the muscular structure, but it is always limited, and usually absent. The muscular structure is therefore relatively diminished, and it may be absolutely displaced by the connective tissue supplanting it.

At first, then, the uterus is enlarged, heavy, flabby soft, and hyperæmic. Later on, there is a preponderance of the connective tissue, the result of proliferation, the organ is found dense and indurated at the same time it becomes less vascular.

Diminished vascularity is brought about by the growth of the intermediate areolar tissue especially surrounding the blood-vessels, compressing them and thus cutting off the blood-supply. This, the second stage of the disease, is called hyperplasia.

Still later on a further change becomes manifest, the result of the former. Advancing proliferation and hyperplasia of the connective tissue renders the parenchyma of the uterus more and more dense and indurated, less and less vascular, until finally a condition is found as above described. The microscopic appearance of the parenchyma on section is white or reddish-white, deficient in blood-vessels, and its firmness is so increased by contraction and condensation that it creaks under the knife, simulating the hardness of cartilage.

* Read before the recent meeting of the Western Surgical and Gynecological Society.

The uterus now grows smaller and undergoes atrophy. This is the stage of sclerosis, or cirrhosis.

We then, may recognize three distinct stages of hyperplasia; 1, hyperæmia; 2. numerical hypertrophy; 3, sclerosis. The second is the result of the first and the third is a practical continuance of the second.

From a pathological point of view the old term "chronic metritis" has been deemed incorrect, inasmuch as it implies an acute stage of an inflammation which rarely exists, and a study of the morbid anatomy has failed to demonstrate the evidence or a chronic inflammation.

But as has been stated, the term is very convenient from a clinical stand-point, because we possess none better to embrace a variety of conditions presenting the same clinical features on examination. Jacobi presented an elaborate and strong argument in favor of the old view, and states that hyperplasia whether a chronic ar acute affection from the start, is an inflammatory disease.

The error of such a view is now apparent when we consider the great rarity of acute parenchymatous metritis as shown by all autopic examinations, and the clinical fact that most cases of chronic metritis have never manifested any acute symptoms. To recent investigation chiefly microscopic, in pathology, are we indebted for a correct understanding of the morbid process of this disease.

It is impossible to determine at the bedside exactly when the state of subinvolution commences to merge into that of hyperplasia as it is slow and insidious in its development. The two affections to clinical appearances, resemble each other, and apart from the history, differentiation is obscure.

Just as the hyperæmia of subinvolution proves so potent a factor in this disease, so may continued hyperæmia of the uterus from any cause lead to true hyperplasia. To a great extent hyperplasia is limited to the parous uterus.

The normally firm resisting walls of the nulliparoes organ afford a strong resistence to expansion, whether by vascular fullness or cellular proliferation. Still it is not to be forgotten that this disease may and does occur in the nulliparous organ; for we do have about the same condition taking place in menstruation as in a gravid uterus. Chronic hyperæmia and hyperplasia—may involve any portion of the uterus, neck or body, or certain portions thereof. For manifest reasons the neck of the uterus is a favorite habitat.

The extreme liability of this portion of the organ to injury by contusion and laceration in parturition; to friction in coitus or by displacement; its tendency, favoring gravitation of blood—within its structures; the relatively increased frequency of cervical endometritis over the kindred affection of the body,—these may be mentioned as among the more important reasons. Involution from some of these causes may be incomplete in the neck, while perfected in the body. As hyperplasia may be localized in the cervix, corpus uteri or be general, its exact seat is revealed by vaginal and rectal touch, specular, bimanual and sound explorations.

If the cervix is involved, it is generally the anterior lip which is affected; if the body, it is the posterior wall which is more frequently involved, stimulating fibroid infiltration.

To the more frequent implantation of the placenta on the hinder walls and consequent increased risks of delayed involution, and to the fact that retroversion is one of the most common form of displacement after parturition, may be attributed this special localization.

There are no symptoms in hyperplasia pathognomonic of it, none that belong exclusively to it, none but what are found in other chronic pelvic (especially uterine) diseases. Many of the symptoms are dependent largely upon the degree of hyperæmia, with the increased bulk and weight of the uterus. Others result from certain complications such as chronic endometritis, almost constantly present.

The most common local symptoms, which in a great proportion of cases date back to a confinement, are sensations of heaviness, weight, and dragging within the pelvis, aggravated by walking, standing, and especially running the sewing machine, and the approach of menstruation. The performance of the last named function necessarily augments the local blood-supply, increases the uterine weight and consequently the tension upon the uterine ligaments. Urination and defecation may now be made frequent and painful by direct pressure of bladder or rectum on the uterus or by a sympathetic irritation.

Vessical irritability is sometimes one of the most annoying of all symptoms. Cocygodynia, usually a neurosis, is another example of reflex uterine irritation. Leucorrhœa is, as a rule, present on account of existing endometritis. The menstrual function will be disturbed in time, duration, quantity, or quality, according to the stage of the disease, the degree of hyperæmia, and the portion of the organ which is especially involved.

At the beginning of the disease, whether from subinvolution or otherwise, as a rule,

menstruation is profuse, prolonged or too frequent. The menstrual flow becomes less free until it is scant, or may after years become very irregular and cease altogether, thus causing an "early change of life." The uterus becoming harder and denser as the diseased condition produces growth of the connective tissue. A dull aching pain through the uterus and a congestive dysmenorrhœa—is often experienced, commencing a few days prior to the menstrual flow and increasing until it is well established. It is usually relieved by the depletion caused by the flow. All of these symptoms are aggravated by the occurrence of any serious amount of displacement. They are likewise more pronounced when the body of the uterus instead of its neck is the seat of the disease. The productive funtions are affected in various ways. Subinvolution and beginning hyperplasia, appear rather to favor pregnancy, though abortions are more apt to follow.

Advanced stages of hyperplasia and sclerosis are attended with sterility. Pregnancy completed, parturition normal, a prolonged careful attention during the lying in state will doubtless do much, to improve the previously existing morbid condition of the uterus.

The treatment of the various conditions of enlargement is so dependent on their causation, that each individual case demands a separate investigation. The ideal way of approaching this subject lies in the direction of prevention, which in a great many cases the attending physician is able to do. But as gynæcologists we meet disease already developed and we have to devise methods which, if not curative, are to say the least, palliative.

Our first attention to the patient is to see that the bowels are kept freely opened, and the digestive organs are in as good a condition as possible. Give, if necessary a tonic to stimulate the appetite, and in every way doing what we can to improve the conditions of her general health.

I believe it advisable in all cases that the patient be placed in a recumbent position at least for a while, and ascertain, if possible the exciting cause of the disease. We must have the patient abstain entirely from sexual excitement.

It is my experience that all cases of this kind do better in a hospital or sanitarium where absolute quietude can be had. It is essential in nearly all cases to make a currettement, for in this disease we generally have endometritis of a granular nature. By curettement we not only remove the diseased endometrium but also assist in depleting the entire organ which is very essential in this disease. To make the blood-letting more complete, I have found it necessary to make several incisions or punctures over cervix. It may be necessary to make two or three curettements before the patient is relieved.

In order to make a curettement in the correct way we must first dilate the cervix so that we have proper drainage. Should a laceration exist large or small, it is our duty to repair it as soon as possible, for we all know that a very slight laceration will in itself cause enough irritation to produce this disease, or to continue it when it already exists.

Should there be no laceration but a granular endometritis and we cannot make a curettement, I have found nothing better than the application of a 95 per cent carbolic acid to the entire diseased mucous membrane, always being very cautious not to let any of the acids come in contact with the mucous membrane of the vagina. Should this occur, however, we should at once apply alcohol which will neutralize the phenol.

In making this application I use a strip of gauze one inch wide and two feet long, saturate it with carbolic acid, squeeze the surplus out and then pack the uterine cavity leaving it in place for 48 hours. This is also necessary after curettement if we are treating an infected uterus. Repeat this four or five times and at the same time tamponing the vagina with wool or cotton saturated with a solution of boroglyceride. This will give the very best results in the majority of cases. I do not believe the steam and hot water treatment will ever be used with any success in general practice, or that it will be very popular in hospital work. Iodine and the caustics in my hands have not been of much service, in fact, in my opinion the caustics do more harm than good.

In neurotic patients nothing is better than a change of climate and scenery. In some cases a simple change in the surroundings do much good. To sum up the treatment, we would rest the patient, remove the cause, deplete the diseased organ and if possible improve her general health.

609½ Francis Street.

Intravenous Administration of Anti-Diphtheritic Serum.

D. R. Cairns (Lancet, Dec. 20, 1902) says that the marked reduction in the case-mortality in diphtheria effected the introduction of the diphtheritic antitoxin is admitted by everyone, but, great as this reduction has been, the experience gained in the treatment of this disease in the city of Glasgow Fever Hospital, Belvidere, suggests that even a further fall in the case

mortality may be hoped for. The lines along which this improvement may be effected are twofold: (1) by the exhibition of larger doses than those commonly recommended and (2) in certain cases by the intravenous use of the remedy. The employment of larger doses of serum has been already advocated by several observers, but, so far as the author is aware, no one has recommended the intravenous use of the remedy. In a paper dealing with the serum-treatment of bubonic plague he has advocated the intravenous use of Yersin's serum as a most useful adjunct to the subcutaneous injection of the remedy, and the encouraging results obtained in apparently hopeless cases of this disease suggested the employment of the same method of administration in the treatment of severe cases of diphtheria. Both diseases are due to the reception at a particular part of the body of a specific micro-organism which must be considered as the essential cause of the lesion, while the general symptoms of the disease are brought about by the absorption into the system of a definite chemical poison which is formed by the life-processes of the organism at the seat of inoculation. In plague the subcutaneous injection of Yersin's serum is followed not only by a marked antitoxic effect, as evidenced by improvement in symptoms, but when introduced into the lymphatic drain toward the bubo a directly bactericidal effect can be demonstrated, the organisms contained in the bubo showing evidences of degeneration very soon after the administration of the serum. When given subcutaneously, however, even in large doses, the effect of the serum appears to be chiefly a local one, degeneration appearing only in those organisms which lie within the area of injection. By the intravenous method, the maximum influence of the serum on the tissues and also on the organisms is obtained with greater rapidity than when the serum is used subcutaneously, and those bacilli which have overflowed from the primary focus of infection into the circulation can be reached directly and similar degenerative changes be produced, while at the same time the circulating toxin is most effectively dealt with. The fact that the administration of even large doses of serum subcutaneously is not followed by a commensurate improvement suggests that the serum, in its passage through the lymphatic vessels and glands undergoes a qualitative change whereby its power of neutralizing toxin is considerably diminished. This may be due to (1) a selective action exercised by the lymphatic glands in filtering out the active constituent of the serum, or (2) to the fact that, as Ehrlich has shown, there are a definite chemical action and reaction between toxin and antitoxin, neutralization going on more quickly and more effectively in concentrated solutions than in diluted ones. In the case of plague the local action of the subcutaneous injection of serum is probably directed in the first place to the neutralization of the toxin locally present in the bubo and its vicinity and also to inducing bacillary degeneration in the comparatively large number of organisms present in the primary lesion. Any surplus of antitoxic bodies which reaches the general circulation after passing through the lymphatic channels will probably be present in the blood in such a state of dilution as to be comparatively ineffective, especially in septicemic cases of plague. By immediate introduction of the serum into the general circulation, however, those bacilli which have found their way to the deeper organs may be destroyed and the circulating toxin neutralized by the comparatively concentrated solution of antitoxin.

Forty Cases of Typhoid Fever Treated by Benzoyl-Acetyl Peroxide (Acetozone.)

Abt and Lackner (Therapeutic Gazette.)

The average age of the patients was 8.75 years, and they were admitted to the hospital on an average of eight days after the beginning of the illness. Two cases died. The Widal test was positive in every case. The diazo-reaction was seen in the urine of twenty-five cases, was absent in eight, and not sought in seven cases. The spleen was enlarged and palpable in thirty-eight cases. Rose spots were present in twenty-five cases, and epistaxis was present in four.

Acetozone given in the form of powder was used in each case, the average quantity per patient being 210 grains. Sometimes it was administered mixed with jelly or raspberry syrup, in which form it is not palatable. The least offensive way of giving it is in aqueous solution with a few drops of orange extract. The two patients that died presented in one case marked pyrexia, and in the other a complicating pneumonia from an edema of the lungs. In the entire series of cases stupor and tympanites were rare. Hemorrhage occurred twice in one of the cases. The typhoid fetor of the stools was markedly diminished. The average duration of the fever after the acetozone was begun was 13½ days, these figures including two relapses. The average duration of the illness from its inception to convalescence, including the two relapses of six days each, was twenty-three days. The duration of the disease in each case was reckoned from the day the patient became sick enough to be cognizant of the fact.

Charlotte Medical Journal

EDWARD C. REGISTER, M. D., Editor.

No. 36 South Tryon Street, - - - -

- - - - - - - - - - - Charlotte, N. C.

THE LEGAL DEFINITION OF THE PRACTICE OF MEDICINE IN NORTH CAROLINA.

During the recent session of our legislature a bill entitled "An Act to Defline the Practice of Medicine and Surgery" was introduced and with a few modifications passed and is now a law. The bill as it was originally introduced was to amend section 3122 of the Code by adding thereto the following words: For the purpose of this act the expression "practice of medicine or surgery" shall be construed to mean the management or treatment, for fee or reward, of any case of disease, physical or mental, real or immaginary, with or without drugs, surgical operation, surgical or mechanical appliances, or by any other method what so ever; Provided, that this shall not apply to midwives, nor to nurses acting under the direction of a registered physician.

The bill was favorably considered by the committee on health of the house and passed its final reading in that branch on Feb. 7th.

When the bill was referred to the Senate it met with considerable opposition, principally by attorneys employed by the Christian scientists. Our efficient Secretary of the Board of Health of this State, Dr. R. H. Lewis, appeared in the defence of the bill and his address before the Senate Chamber or the joint committee on health of the two Houses was indeed a strong logical argument. He certainly presented his side with much force and clearness. Dr. Lewis among other things said that the State Board of Health is required by law to look after and direct the attention of the State to matters effecting the health and lives of the people. He said that incompetant physicians constitute one of the greatest menaces to the public health. The State recognized this 44 years ago and since that time all physicians no matter how well educated have been required to prove their competancy to the Board of Examiners before being permitted to practice in the State. The result of this is that the medical profession of the State of North Carolina to-day stands among the first in the country.

Until recently the word "medicine" was supposed to be the whole healing art, but our Supreme Court has decided that it meant only drugs and the ordinary surgical process. This made it necessary for the Chairman of the Committee on legislation, who is usually appointed by our State Medical Society, to undertake to amend the definition of the practice of medicine in order to protect the people against osteopathy, Christian scientists, faith healers, etc.

In this State as in almost every other the ethical, the educated and the pains taking physician has to stand examinations and pay special taxes while the irregulars have no restraint and have to pay no taxes. They endure none of the hardships or legal restrictions in order to build up the medical profession. Their policy is fraud and irregularity. They want something for nothing.

As Dr. Lewis said before this committee, the most difficult thing in the practice of medicine is to make a proper diagnosis. To do this it takes special training and years of experieece. Besides competent physicians in order to be exact in this line of work must possess many expensive appliances and instruments devised especially for the purpose. All of this is considered unnecessary by quacks, the Christian scientists, the osteopaths, etc. It makes no difference to them whether it is an infectious or contagious disease—they treat everything in the same manner. They don't stop to think of the lives they endanger nor the harm they do their town, their community and their State in dealing with smallpox, diphtheria or scarlet fever in this ignorant and mercenary way. This method endangers not only the lives of those directly concerned, but also those of innocent people who are indirectly exposed.

Finally the bill was modified so that the Christian Scientists were not included. The writer is glad to observe that the ministers of the churches throughout the country are beginning more and more to unite in the belief that Christian scientists are doing the church and the cause of religeon a great deal of harm. If this feeling continues the truth and right will soon prevail and this fad will die an early death without the aid of legislation. Dr. Lewis has again improved our State laws touching upon the practice of medicine. He deserves our thanks.

BURNS AND SCALDS.

These two conditions, so far as the practical conditions go, for all surgical treatment required, may be classed as the same.

Burns are surgical emergencies which come under the care of the general practitioner and are of such a form of emergency which calls for very prompt and efficient treatment, since the condition is not

only very painful, but is one which needs to be relieved in the earliest possible space of time that there may be as near a minimum of prostration as is possible, from the effect of pain on the nervous system.

The first thing to be done, especially in severe burns, is to remove the clothing that remain over the burned or scalded parts very carefully so that the cuticle may not be rudely torn away. Then the surface should be covered, to protect it from the air; and nothing serves the purpose better than a mixture of sodium bicarb. and petrolatum; also if handy a portion of bismuth subnitrate or boric acid, or both. The old remedy of caron oil also meets the purpose quite well, and is very effectual.

All shreds of burned or charred tissue which may be readily and safely removed, perhaps under an anesthetic, should be snipped off with a pair of cleansed scissors.

As a rule all cases will do well under an application continued of boric acid, bismuth sub. nit. with petrolatum. This paste may be applied to the surface and sleeves or waists or whatever parts necessary to be covered, drawn on, or the paste may be spread on canton flannel and applied to the part burned. The burned surface may be dressed several times a day; as the nature of the scar may require, to keep the burned surface protected from the air.

Tichy (Deutche Med. Woch., Leipsic, 1902), treats burns of first and second degree with a solution of chloride of lime. He claims excellent results in less time than under other forms of treatment. The following is the formula which he uses.

Calcium hyperchloride 36 to 75 grs. Distilled Water 36 ounces, dissolve and filter and add spirits of camphor 85m. This is applied and in 24 hours all vessicles are opened and the surface redressed. This form of treatment he says, heals in two weeks, which by ordinary measures require four weeks.

Biddle (Penn. Med. Journal, Aug. 1902) uses and urges the advantage of a dressing composed of carbonate of lead, powdered acassia, bicarbonate of soda and linseed oil, made thin enough to spread nicely upon canton flannel. He claims that fewer scars will remain after the use of this application than of any other. The writer has used with much satisfaction to himself and comfort to his patients a combination referred to in the first part of this article composed of bismuth, boric acid and petrolatum, spread on canton flannel.

A very important matter which should receive early attention is the pain and shock which is liable to follow the accident. This will call for the careful use of opiates to give the patient quiet and comfort. Morphin or deodorized tinct. of opium will serve this purpose. Sleep may be obtained by a careful use of bromide of ammonia or chloral or the two combined. Digitalis and strychnia with brandy, or better, aromatic spirits of ammonia, will be useful in sustaining for the time the prostrated system. These two stimulants may well be used together or alternately.

Burns are emergencies upon which every physician and every beginner in medicine especially, should have himself well posted in the diagnosis, prognosis end treatment; that he may be ready at the call to go prepared and alive as to the requirements of the occasion.

THE INTRAVENOUS INJECTION OF FORMIC ALDEHYDE IN BLOOD POISONING.

During the past few weeks the medical profession has been almost startled by the reports made regarding recent investigations and studies of the action and effect of intravenous injections of Formalin in a number of cases of Septicæmia.

Quite noteworthy is the report of a case by Dr. C. C. Barrows before the New York County Medical Association on Jan. 19th, 1903, at the Academy of Medicine in New York City (New York Medical Journal, Jan. 24th, 1903, also Jan. 31st,) in which Formic Aldehyde was used intravenously in a case of puerperal Septicæmia. The Formalin solution to all appearance gave a successful result in the case. Streptococci were present. The temperature ran up to 108 deg. and the pulse 160 and the case was thought to be almost moribund. At this point the intravenous injection of 500 c.c. of a 1 to 5,000 aqueus solution of formalin was made. The temperature immediately dropped down near normal. After some hours when the temperature had risen somewhat a second injection of 750 c.c. of the same solution was used after which the temperature fell to normal and the case went on to recovery. Two other cases were reported at the same time, one was treated by Dr. Edward Waizfelder which proved successful. A third case reported by Dr. W. L. Baner a case of Blood Poisoning from an injury to the head. In this case there occurred a complication of broncho-pneumonia. The case lingered from Dec. 12th to the 21st, when death occurred. At the autopsy death was declared due to blood poisoning.

In the Lancet, for Jan. 10, 1903, Dr. J. M. Fortesque-Brickdale also details experiments with Formic Aldehyde, his results, however, are not confirmatory of all of the mildly extravagant statements of the daily press.

Whether successful results and assured

success will follow the use of this gas, remains to be established after very careful study and investigation by the profession, especially laboratory workers. It is a matter of the greatest moment since the condition of Blood Poisoning is one of rather too frequent occurrence and is fraught with very serious results; and the profession will hail with pleasure proof of successful results with this solution. In the occurrence of infection received from wounds or abscesses during operations by surgeons; should the gas, prove to be of such germacidal power and safe in its application, then there will be at hand a remedy that may be promptly applied.

With a new product of the laboratory of which we are almost strangers as to its power and effect in this new field and manner of use, fraught with undoubted great danger, there is the best of reasons for the utmost need of precaution by persons undertaking any experimental studies; unless thoroughly versed in its nature and power; and they should be fully prepared in the proper use of the drug, as well as ready for any accidents should they occur.

There is a possibility that the excitement regarding this new found application for this substance may be quite effemoral and a few months trial show its inefficiency. Dr. J. Whitridge Williams, of Johns Hopkins Hospital, declared in the discussion before the New York County Medical Association when this subject was under discussion that he "was compelled to view this new and interesting subject with great reserve."

BEARDS ON OPERATING SURGEONS.

Several of the large German hospitals have positively forbid all operating surgeons to wear beards. Some curious statistics have been found showing the mortality following operations by bearded surgeons and those who were closely shaved. In one instance this amounted to ten per cent. increased mortality. The surgeon doubting it, cut off his beard and immediately demonstrated the source. Bacteriologists tell us that the beard and mustache is a favorite hunting ground for numerous microbes. The surgeon who takes great care with his hands and nails to render them aseptic and neglects his beard is evidently short-sighted. If assepis is to be complete, it should extend to the hair, beard and face. The inconsistencies of surgeons in neglecting so important a source of danger as the facial adornments is apparent in many hospitals in this country. A French surgeon in an elaborate paper recently advocated that the beard should be cut down to half an inch or more and then thoroughly washed before surgical operations. If the researches of microbes continue to show the variety and infinite number present, the drugs to produce assepis and destruction of these microbes ought to increase proportionally.

HOT-AIR IN RHEUMATISM.

Recently, the use of dry-super heated air has come into prominence as a valuable remedy in the treatment of rheumatism. Various kinds of apparatus by which hot-air can be concentrated on different parts of the body are on the market. Some of them are very practical but in nearly all instances the physician can improvise many appliances which will answer just as well. In a recent work by Dr. Skinner who is a pioneer in this field the following conclusions are stated as having been reached from a large experience with the use of hot-air.

First, immediate relief of pain, however severe, which relief may be rendered permanent by repeating the treatments as often as the pain becomes troublesome; every four hours, if necessary.

Second, shortening of the duration of the disease, which usually lasts only from five to ten days when hot air is thoroughly administered in combination with salicylic acid.

Third, lessening of the liability of cardiac involvement because of the rapid control obtained over the pathological condition, whereby the infection is inhibited from further attacks upon other tissues.

Fourth, the lessened number and quantity of the drugs which it is necessary for the patient to ingest, because of the increase produced in the efficiency and intensity of their action at the seat of infection; hence rendering it possible to avoid drug intoxication.

Fifth, in many cases which prove intractable to other measures its employment will render possible the extinction of the trouble.

SOME EARLY SYMPTOMS OF PARALYSIS

The name Paralysis is often misleading, for in many instances it indicates a condition in which no paralysis is preseut at first and yet farther on there are general conditions of palsy which are unmistakable. All sorts of diverse symptoms appear in the early stages. One is often surprised at the post-mortem to find well marked hypertrophies and degenerations of the cord and membranes in which there were no symptoms indicating these conditions. On the other hand, tremors of the muscles and incoordination of the speech appears in which there are no pathological changes found. Another type of so-called palsies begin with great mental exaltation and extreme

satisfaction and buoyancy which are often mistaken for perfect health. These symptoms may go on for some time, then develop into egotism, faulty judgment and supreme optimism which the physician readily recognizes as the first stage of paresis. In the ordinary general paralysis from schlerosis, and peripheral nephrites there are always fibrilary tremors and trembling of the small fibers of the muscles. This may be associated with mental hesitancy and jerking utterances as if it was an effort to speak. The weakness is shown generally in the hand-writing or any work requiring special exactness in touch. Often the gait is uncertain and wavering, and when the eyes are not resting on the space in front of the feet, a tottering movement is noticed. One of the most pronounced and serious of the various palsies is general paralysis in which grandose delusions show themselves and continue until motor-palsies appear in both extremities. These delusions may not always be present. There may be depression and extreme inability to move or think, approaching almost a dementia. The treatment is practically of no avail. If a history of syphilis is present, mercury may be of some gain, but if not all other remedies fail to check the insiduous march of the disease. Often one of the early symptoms is the tremor of the tongue, lips or hands which have not been noticed by the patient, or perhaps the difficulty of speaking or recalling the exact word needed. This aphasic condition may not be noticed even by the patient until it has become almost a constant symptom. The diagnosis of these conditions should be made with great care and the patient should never realize their import because of the psychic conditions present, intensifying the fact of disease. In the delusional stage nothing could create alarm. In the depressed stage every intimation is intensified into reality with increased suffering. Fortunately paralysis as a general condition is traceable to some legion or poison in the system, and the general therapeutic indications for removal of these conditions are very clear.

THE INFLUENCE OF THE BLOOD ON THE NERVE CENTERS.

Modern pathology makes it very evident that many nerve symptoms and stages of disease are largely dependent on the condition of the blood supplying the nerve centers. If the arteries or veins are obstructed in any way, the derangement of the circulation is followed by retention of the effete products with a diminution of nutrition and an increase of the irritating and poisoning influences. The word "Anæmia" describes these conditions. Both arterial and venous anæmia may be followed by congestion in which a poison state of the nerve centers will be manifest in many striking symptoms. In these conditions there is mal-nutrition and retardation of nerve force, or stages of excitability with increased explosiveness of nerve energy. Hence, in many neurosis, such as corea, hysteria and general neuræsthenia, an obstruction of the circulation may be an active cause. In some forms of tuberculosis and chronic intestinal catarrh, there are marked symptoms of central nerve poisonings both from want of nutrition and the presence of toxines. In diphtheria, scarlet fever, and rheumatism the nerve symptoms which follow are due directly to these causes. There may be local irritations, but the blood condition is faulty, and the nerve cells are ill-nourished. Both the storage and discharge of nerve energy is diminished. In many of these diseases, hyper-nutrition from concentrated foods are bad remedies because of the inability of the metabolism of the body to properly appropriate the nutrients needed, and the weakness of the blood to carry them through the circulation. Diminished chemical metabolism of the nerve cells are undoubtedly conditions present in many cases.

GIDDINESS.

A very common symptom termed "giddiness" is a subject of an article recently read before a learned society in which a number of very practical facts are brought out. As a rule, this symptom is not a serious one and points to some temporary derangement of the circulation of the blood in the brain, and yet it should always be examined with some care for it may be the symptom or first indication of serious disease. Compressions of the brain from hemorrhages or the pressure of tumors and some diseases of the internal ear are preceded by giddiness. When organic lesions are present, this symptom is constant with every movement of the body. Over-exertion of the heart from strain, excitement and prolonged muscular effort is marked by this condition. In many forms of fever, in which delirium is present this is one of the symptoms. In patients in which the blood vessels are over-tense and the heart's action is sharp and impulsive, this symptom indicates threatened hemorrhage. Several well-known drugs will produce this effect, such as opium and belladonna. Excess in alcohol is followed by the same condition. Often the distended stomach and congestive liver is manifest in this symptom. Persons who have had prolonged drains either from the bowels or loss of blood complain of this condition. Many nervous persons have

this symptom which is often hysterical condition increased by fear and mental contagion, having once suffered under similar conditions they expect the recurrence of the same symptoms. The mind has a very large influence in these cases and when a person is told that tea and coffee will produce these conditions the dominant idea will prevail to such an extent as to bring them on again. The author is very confident that alcohol and tobacco by deranging the circulation of the blood and the brain and increasing the growth of toxines and otherwise deranging the digestion, are the common conditions present of which this is a symptom. Next to this he believes that hypertrophy and cardiac dilatation of the heart is followed by this symptom. In some persons it is a constitutional weakness and indicates a feeble power of control over the nerve centers, as in the case of persons standing on a high place looking down on the plain below who seem to lose control of themselves. This symptom should always be examined with great care, and elimination through the skin, bowels, and kidneys is the principal treatment. Then if the condition continues, farther research will point to other therapeutic measures required.

Dr. Von Forth has recently called attention to the poisonous character of the active principle of the suprarenal preparations. The symptoms of poisoning are profound depressions of the circulatory and respiratory nerve centers which go on to fatal termination. He urges where suprarenal preparations are given it should first be demonstrated that they are not specifically poisonous to the persons by a few clinical trials with a careful observation of its effects.

OBITUARIES.

Dr. T. Gaillard Thomas died at Thomasville, Ga., Feb. 28, 1903. Dr. Thomas lived to be quite an old man. His life was a model one. He displayed the highest type of manly vigor and was one of the most skilled specialists in the diseases of women that this country has ever produced. He was 72 years old when he died, but apparently he was a man of fewer years. He was a descendant of a family noted for its culture and genius. He was a South Carolinian. His father was Rev. Edward Thomas, and his mother was Jane Marshall Gaillard, daughter of Judge Gaillard of the Superior Court of South Carolina. He was born in 1831, and was educated at the Medical College of Charleston and graduated from that institution in 1852. From there he went to New York and took post graduate studies at Bellevue. Subsequently he was resident physician in this institution. From New York he went to Europe and spent several years. When he returned to New York he soon became noted for his originality and advanced ideas in medical thought. The great ideas that soon revolutionized medical science were grasped by Dr. Thomas and he helped to shape, possibly, as much as any man in this country, the basis of scientific medicine. Nearly all of his professional life he was a teacher of medicine. He was always connected with some of the colleges in New York. He was a fluent lecturer—always logical. He had the happy faculty of giving you the idea and impressing it on you in such a way that it was not easily forgotten. He was equal to the renowned Loomis in his skill in physical diagnosis, he was an enthusiast in this department of medicine. At one time he was a partner in the practice of medicine with the late Dr. Metcalf. It was when he was a lecturer and professor of obstetrics in the College of Physicians and Surgeons that the writer first met him. In this capacity he was certainly the leading man in the great metropolis. After 1868 he devoted his entire time to surgical and gynecological work. He was a great medical writer and was a constant contributor to medical journals. His work on gynecology was possibly the most popular work of this kind ever published. It has passed through its sixth edition and can now be found in two-thirds of the private and public medical libraries in the United States. Besides it has been translated into almost every language where scientific medicine is practiced.

Dr. William Elias B. Davis, Birmingham, Ala. On Feb. 24th, 1903, Dr. Davis was instantly killed by a passenger train on the Alabama Great Southern Railway at his home in the city of Birmingham. This sad occurrence is a great shock to his many friends and admirers. There was no physician or surgeon in the South better known and more loved than Dr. Davis. He was genial and pleasant and had one of the most charming personalities that the writer has ever known. He graduated at New York from the Bellevue Hospital Medical College in 1884. While a student he made for himself a name that any of us might envy. You could always find him standing for everything ethical and scientific. Ever watchful to do something to build up the medical profession. He was the controlling spirit of the Southern Surgical and Gynecological Association for many years. At one time he was presiden

of the Tri-State Medical Society of Alabama, Georgia and Tennessee. He was also president of the American Association of Obstetricians and Gynecologists. He was professor of Gynecology and Abdominal Surgery in the Birmingham Medical College. In addition to these positions of honor and trust he held many other eminent positions. On the occasion of the meeting of the second Pan-American Medical Congress held in the City of Mexico the writer had an opportunity to estimate Dr. Davis' popularity as a leader in medical thought. At this meeting no member of that great scientific body, not even the renowned Pepper, received more courtesies or more complimentary references than Dr. Davis. His death is a great loss to the profession of the South. It is certainly sad to note the untimely death of one of the greatest surgeons the South has ever produced.

Dr. Joseph Christopher Shepard died in the 64th year of his age in Wilmington, N. C. a few days ago. Dr. Shepard was an old resident of Wilmington and was known favorably as a physician and christian gentleman in his city, county and State. He has been a prominent member of the North Carolina Medical Society for 20 years. During his useful and busy life he held many positions of honor and trust. He was several times Superintendent of Health in Wilmington. He was a surgeon in the Confederate Army.

EDITOR CHARLOTTE MEDICAL JOURNAL,

Dear Sir: Three times during the last half century medical manifestos have been issued giving the opinion of physicians on alcohol. The first was issued in 1839, and was signed by 86 persons. The second in 1847, and was signed by 2,000 physicians, and the third appeared in 1871, with the signatures of over 4,000 physicians, including the names of many leading physicians in all parts of the world. A fourth declaration of opinions is now being circulated for signatures, and reads as follows:

The following statement has been agreed upon by the Council of the British Medical Temperance Association, the American Medical Temperance Association, the Society of Medical Abstainers in Germany, and leading physicians in England and on the continent. The purpose of this is to have a general agreement of opinions of all prominent physicians and in this way give support to the efforts made to check and prevent the evils from this source.

In view of the terrible evils which have resulted from the consumption of alcohol, evils which in many parts of the world are rapidly increasing, we, members of the medical profession, feel it to be our duty, as being in some sense the guardians of the public health. to speak plainly of the nature of alcohol, and of the injury to the individual community which arise from the prevalent use of intoxicating liquors as beverages.

We think it ought to be known by all that:

1. Experiments have demonstrated that even a small quantity of alcoholic liquor, either immediately or after a short time, prevents perfect mental action, and interferes with the function of the cells and tissues of the body impairing self-control by producing progressive paralysis of the judgment and of the will, and having other markedly injurious effects. Hence alcohol must be regarded as a poison, and ought not to be classed among foods.

2. Observation establishes the fact that a moderate use of alcoholic liquors, continued over a number of years, produces a gradual deterioration of the tissues of the body, and hastens the changes which old age brings, thus increasing the average liability to disease (especially infectious disease), and shortening the duration of life.

3. Total abstainers, other conditions being similar, can perform more work, possess greater powers of endurance, have on the average less sickness, and recover more quickly than non-abstainers, especially from infectious diseases, while they altogether escape diseases specially caused by alcohol.

4. All the bodily functions of a man, as of every other animal, are best performed in the absence of alcohol, and any supposed experience to the contrary is founded on delusion, a result of the action of alcohol on the nerve centers.

5. Further, alcohol tends to produce in the offspring of drinkers an unstable nervous system, lowering them mentally, morally, and physically. The deterioration of the race threatens us, and this is likely to be greatly accelerated by the alarming increase of drinking among women, who have hitherto been little addicted to this vice. Since the mothers of the coming generation are thus involved the importance and danger of this increase cannot be exaggerated.

Seeing, then, that the common use of alcoholic beverages is always and everywhere followed, sooner or later, by moral, physical and social results of a most serious and threatening character, and that it is the cause, direct or indirect, of a very large proportion of the poverty, suffering, vice, crime, lunacy, disease, and death, not only in the case of those who take such bever-

ages, but in the case of others who are unavoidably associated with them, we feel warranted, nay, compelled to urge the general adoption of total abstinence from all intoxicating liquors as beverages as the surest, simplest, and quickest method of removing the evils which necessarily result from their use. Such a course is not only universally safe, but is also natural.

We believe that such an era of health, happiness, and prosperity would be inaugurated thereby that many of the social problems of the present age would be solved.

This declaration has already received the signatures of over 1,000 physicians in all parts of the country. I have been appointed chairman to present this manifesto to American physicians for their endorsement. I should be very glad to receive the name, title and address of any physician who is willing to aid by his signature to correct public sentiment and assist in the prevention of one of the great evils of the age. This is purely a scientific effort for the purpose of having a general consensus of opinion of the leading physicians of the world, and it is assumed that American physicians are equally enthusiastic and prompt to lend their signatures to this statement as in the wine-drinking countries of Europe. A postal card with address and title is earnestly solicited from every medical man who would like to be represented in this great movement for a clearer comprehension of the subject. Address

T. D. CROTHERS, M. D.,
Hartford, Conn.

The Thanks We Get.

Several years ago, I was called to see an old man, about sixty-five years of age, whom I knew to have been a sufferer for some time.

I found him confined to his home, miserable both in body and in mind, from pain and discouragement. He stated that he had an enlarged prostate, and had been in the hands of several physicians; in proof of which he pointed to a large, old fashioned bureau, the ample top of which was filled with bottles of all sizes, shapes and colors, containing his medicines.

He said that the medicines made him sick, and that he could take no food, and that his nights and days were a constant agony, from the frequent, and ineffectual efforts to empty the bladder. Now, as a natural consequence of this state of affairs, there was a marked and progressive loss of flesh and strength, and, in truth, the old man had about decided that his journey was well nigh over.

Upon examination, by the rectum, I found an immensely enlarged and tender prostate: so much enlarged, in fact, that it almost occluded the bowel, as well as the urethra. The tenderness was exquisite, but the feel to the finger such as suggested hypertrophied tissue only.

The problem confronting me, viz: how to relieve my patient, was a knotty one to solve. I modestly suggested removing the testicles, at the same time throwing out the hint that at his time of life he could afford to part with them. From this he demurred most vigorously, stating that in spite of his age, he preferred to retain the organs intact. His violent opposition to any surgical procedure, gave me some encouragement, but it was with little hope of ultimate glory that I prescribed a simple plan of treatment, and insisted most forcibly upon his following it to the letter.

First, I told him to stop taking all medicines; save the one that I should give him, which was nothing more than a solution of sulphate of magnesia, colored with cardamom, and flavored with mint water, to be taken at stated intervals; in addition to which he was to take a full dose of Epsom Salts, in hot water, each morning, if necessary, to keep the bowels loose, and secure several free stools each day.

The diet was to consist of milk, mostly butter-milk, when it could be gotten fresh, with sweet milk only in its absence, and plenty of water. This, with a forceful description of the importance of absolute rest in bed, as a means of avoiding further irritation of the parts, about constituted my line of treatment.

Now the old gentleman was a "Doctor" himself—an "Herb Doctor,"—and while I could see very plainly that he deemed me a most simple minded man, being practically *in extremis*, he promised faithfully to follow my directions.

Well, I made a few visits to him afterwards, but, to make a long story short, the clearing up of all distressing symptoms, with a progressive improvement in health and strength, dated so markedly from the beginning of this simple treatment, that I could not help a slight self-gratulatory thrill, when, a few weeks afterwards I saw the old man nimbly crossing a field, with his satchel on his arm, visiting his patients, I suppose.

Some months, a year maybe, elapsed, and I was called hurriedly to the patient's house again, to see his wife. This time, in health and vigor, he meets me at the door, and I wonder at the hesitating, and apologetic air with which he stops me on the threshold and says, between his panting breaths: "I'm mighty glad you've come, she's awful sick; and I called for every *Doctor* there was

in town, and couldn't find none of 'em ; so, I just telephoned for you."

Sulphate of magnesia depletes the pelvis, and relieves congested pelvic organs of their surcharge of blood, thus favoring resolution ; or, as the chance in time of life may be, and the tendency of the organs concerned, lessening hypertrophy, and hastening the pending atrophic changes.

H. S. Lott,
134 South Cherry St., Salem, N. C.

Editor Charlotte Medical Journal,
Charlotte, N. C.,

Kindly insert the following in next issue of your valuable periodical :

The Fiftieth regular annual meeting of the North Carolina State Medical Society will convene at Hot Springs, N. C. on Tuesday, June 2, 1903, under the Presidency of Dr. A. W. Knox, Raleigh, N. C. Dr. J. Howell Way, Waynesville, N. C., Secretary. Headquarters will be at the beautiful and commodious Mountain Park Hotel, one of the most charming hostelries in the South. The delights of a visit to the mountains at this season of the year, coupled with a very attractive programme containing the names of quite a number of the State's most distinguished physicians, will doubtless contribute to make the attendance large and the meeting a notable one in the Society's history. Objection has at times been made to having the sessions of the Society held, as they are occasionally, in extreme portions of the State, but the meeting last year at Wrightsville Beach (an extreme point) was one of the most largely attended in the Society's history, and we trust the meeting this year in the extreme West will prove likewise a very successful one. The State Board of Medical Examiners will meet also at Hot Springs on Wednesday preceding the date of the Society's meeting, or on May 27. Gentlemen desiring to read papers at the Society meeting or secure any information will kindly address the Secretary of the Society (Dr. J. Howell Way, Waynesville, N. C.) giving title of paper. Gentlemen wishing to appear before the Board for license to practice medicine in North Carolina will address the Secretary Board Medical Examiners, Dr. Geo. W. Pressly, Charlotte, N. C. Reduced rates given by the Hotels and railroads as usual.

Sincerely,
J. Howell Way.

For the Charlotte Medical Journal.

THE HOSPITAL NURSE.

BY LILLIAN OLIVE HUEY.

Gliding 'tween each pure white cot,
Every thought of self forgot;
Reigning o'er all as queen supreme,
Trying to make life seem a dream;
Ruling each with hand of love,
Kindly pointing souls above;
Giving all a service dear,
Filling aching hearts with cheer;
Tired, yet cheerful all day long,
Making others' life a song;
Answering looks with pleasant smile.
Soothing gently each fretful child,
Singing the weary moments to while;
Striving to heal the pain that's worse,
Such the life of "The Hospital Nurse."

Book Notices.

A Text-Book of Practical Medicine. For the use of Students and Practitioners. By William Gillman Thompson, M. D., Professor of Medicine in Cornell University Medical College, Physician to the Presbyterian Hospital, Bellevue Hospital, etc., New York. New (second) edition, thoroughly revised. In one octavo volume of 1104 pages, with 62 illustrations. Cloth, $5.00; Leather, $6.00; Half Morocco, $6.50, net. Lea Brothers & Co., Philadelphia and New York.

In the original preparation of this work Dr. Thompson built upon the firm foundation of sound Pathology, but throughout the entire structure kept one cardinal principle ever in view, namely, that curative medicine is the rightful object of every practitioner. The cured patient is of inestimably more importance to the physician than the most interesting pathological specimen. Therefore, while drawing liberally from every contributing science, and giving without stint from his own rich experience of twenty years in private and hospital practice and in teaching, the author devoted particular care to the therapeutical sections of his work, making his directions for treatment so clearly detailed and so precise that the volume furnishes the most useful presentation of modern applied medicine.

That Thompson's Practice was appreciated is shown by the exhaustion of the first edition in less than two years. The new edition has been revised with great care, and shows a considerable increase in size.

In order to present the recent substantial progress in special lines, it has been found necessary to rewrite entirely the articles upon Dysentery, Yellow Fever and Malaria,

as well as the sections on Immunization, Preventive Innoculation, and Sero-Therapy. Much of the matter on Diseases of the Blood and Heart, and of the Digestive System will be found to be new. Special attention has been given to the Functional Nervous Disorders. In addition to these major changes, careful revision will be noticed on nearly every page, including additional suggestions as to treatment and new therapeutic formulæ which will prove of great value.

Manton's Obstetrics. A Manual of Obstetrics for Students and Practitioners. By W. P. Manton, M. D., Adjunct-Professor of Obstetrics and Professor of Clinical Gynecology, Detroit College of Medicine. In one 12mo. volume of 265 pages, with 82 illustrations. Cloth, $1.00. Lea Brothers & Co., Publishers, Philadelphia and New York, 1903.

This, the fourth volume of Lea's Series of Medical Epitomes, presents a clear compendious covering of the essentials of modern Obstetrics. It is written in admirably simple language, and its arrangement and scope give ample evidence of its author's experience in teaching this subject.

The little volume stands out boldly as an example of skillful condensation; its 265 pages contain a surprising amount of well-told information necessary to a foundation knowledge, and a superfluous word or phrase would be hard to find. To the student it will prove a boon indeed, and teachers and practitioners will value it almost as much.

For convenience in quizzing a series of questions are given, but in order that they may not break up the continuity of the text these questions appear at the end of each chapter.

The 1903 Standard Medical Directory.—That the publication of a high-class Medical Directory—correct, comprehensive, attractive and influential—is appreciated by the profession is proven by the cordial reception given the 1902 edition of the Standard Medical Directory of North America and the promising auspices attending the 1903 edition now in active preparation with the aid, so the publishers state from actual computation, of nearly twenty-five thousand corresdondents representing every State, province, county, city and town of any size in North America. The new volume will consist of about 1300 pages comprising complete Directories respectively of the Physicians of all North America, colleges, societies, hospitals, sanitariums, mineral springs, publications and in fact everything related to medicine. The new features (including an Alphabetical Index of Physicians with Post Office Addresses and Rosters of Practitioners of the Specialties) will, it is stated, add about one-third to the volume of the work.

Diseases of the Skin. Their Description, Pathology, Diagnosis, and Treatment, with Special Reference to the Skin Eruptions of Children and an Analysis of Fifteen Thousand Cases of Skin Disease. By H. Radcliffe-Crocker, M. D. (Lond.), F. R. C. P. Physician for Diseases of the Skin in University College Hospital; Honorary Member of the American Dermatological Society; Membre Correspondant Etranger de la Societe Francaise de Dermatologic; Correspondierendes Mitgleid der Weiner Dermatologischen Gesselschaft; Tocio Onorario della Societa Italiana di Dermatologia e Sifilografia; Late Physician to the East London Hospital for Children; Examiner in Medicine, Apothecaries' Hall, London. Third edition, revised, rewritten and enlarged. With 4 plates, 2 of which contain 12 colored figures, and 112 other illustrations. Octavo. 1400 pages. Cloth, $5,00; Sheep, $6.00, net. P. Blakiston's Son & Company, 1012 Walnut Street, Philadelphia.

Crocker on the Skin is a book built entirely upon superior merit. It has been acknowledged by the American medical press as "the best text-book in the English language." The third edition maintains this high standard of excellence. Coming at a time when recent progress in dermatology makes an authoritative work upon the subject a positive necessity. It is a safe, accurate, eminently practical and strictly modern treatise, well and clearly written by a man of large experience and most excellent judgment. Though completely scientific, it is written in such a happy manner that the tyro may follow the writer almost as readily as the expert on diseases of the skin. It will be seen, therefore, that it appeals to general practitioners as well as specialists, while to the student it will serve as a valuable guide when he enters upon the more arduous task of practice.

The etiology, symptomatology, pathology and minute anatomy, constitutional conditions, diagnosis and treatment of each disease mentioned is fully entered upon, the therapeutics, dietetics and general regimen coming in also for their due share of attention, great strength in the accuracy of statement and method and clearness of definition and differentiation being shown. The newer remedies and bacteriological researches, in their bearing upon dermatology, are carefully noted.

The book proves Dr. Crocker to be closely in touch with the work and teachings of modern dermatology; and he has sifted from the vast accumulations of recent literature the facts and opinions which have a definite value and are worthy of permanent record. The illustrations, too, showing as they do the morbid conditions of the different structures affected in diseases of the skin, are a not unimportant feature.

Many valuable additions to the text are noted in the new third edition of this standard work. The whole book has been systematically gone over and numorous changes made where recent progress in dermatology and a more exact knowledge of the subject has dictated. The result is a work every page of which bears the impress of thoroughness and large personal experience.

Diseases of the Rectum and Anus. Designed for Students and Practitioners of Medicine. By Samuel Goodwin Gant, M. D., LL.D., Professor of Rectal and Anal Surgery at the New York Postgraduate Medical School and Hospital. Second Edition, rewritten and enlarged with thirty-seven full page plates, twenty of which are in colors, and two hundred and twelve smaller engravings and half-tones. Pages xxiv-687. Royal octavo. Extra cloth, $5.00, net; sheep or half-Russia, $6.00, net, delivered. Philadelphia, Pa.; F. A. Davis Company, Publishers, 1914-16 Cherry Street.

The contents of this book is presented in a masterly way and represents the teachings of one well able to instruct. This book should be in the library of every physician interested in the most advanced methods of treating Rectal diseases.

The arrangement of the book is most excellent, and there is no doubt that it is the best work of its kind now on the market. We strongly recommend it.

A System of Physiologic Therapeutics. A Practical Exposition of the Methods, Other than Drug-Giving, Useful in the Prevention of Disease and in the Treatment of the Sick. Edited by Solomon Solis Cohen, A. M., M. D., Senior Professor of Clinical Medicine in the Jefferson Medical College; Physician to the Jefferson Medical College Hospital, and to the Philadelphia Jewish and Rush Hospitals; One Time Professor of Medicine and Therapeutics in the Philadelphia Polyclinic, etc. Volume V. Prophylaxis—Personal Hygiene—Civic Hygiene—Care of the Sick. By Joseph McFarland, M. D., Professor of Pathology, Medico-Chirurgical College, Philadelphia; Henry Leffman, M. D., Professor of Chemistry in the Woman's Medical College, Philadelphia; Albert Abrams, A. M., M. D. (University of Heidelberg), former Professor of Pathology, Cooper Medical College, San Francisco; and W. Wayne Babcock, M. D., Lecturer on Pathology and Bacteriology, Medico-Chirurgical College, Philadelphia. Illustrated. Published by Messrs. P. Blackiston's Son & Co., 1012 Walnut Street, Philadelphia.

Many of the readers of this work on physiologic therapeutics will no doubt consider this volume the most valuable of the entire series, so far as published. Prophylaxis plays such an important role in disease nowadays that it is regarded as a paramount subject in medicine. This section of the volume has been prepared by Drs. Joseph McFarland and W. Wayne Babcock, whose names alone are sufficient testimonial of its worth. Civic hygiene, which next is considered, has a kindred degree of importance to the community, and Dr. Leffman discusses this subject in its most modern aspects: Domestic and personal hygiene, nursing and care of the sick room from the third and concluding portion of the volume, and it falls to the lot of Dr. Albert Abrams to review these subjects.

No system of physiologic therapeutics has ever been published in the English language that is more complete or valuable than this.

Saunders' American Year-Book. — The American Year-Book of Medicine and Surgery for 1903. A Yearly Digest of Scientific Progress and Authoritative Opinions in all branches of Medicine and Surgery, drawn from journals, monographs, and text-books of the leading American and foreign authors and investigators. Arranged, with critical editorial comments, by eminent American specialists, under the editorial charge of George M. Gould, A. M., M. D. In two volumes—Volume I, including General Medicine, Octavo, 700 pages, fully illustrated; Volume II, General Surgery, Octavo, 670 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Co., 1903. Per volume: Cloth, $3.00 net; Half Morocco, $3.75 net.

We do not know of any similar publication, either American or foreign, that can compete in any way with this excellent Year-Book, published by W. B. Saunders & Company. It is not an indiscriminate collection of extracts clipped from any and every journal: the matter is carefully

selected, edited, and in numerous cases commented upon by the eminent authorities whom Dr. Gould has enlisted as his assistants. Every new theory and scientific discovery worthy of the consideration of the profession has found a place in this unusually complete Year-Book; and the names of the several editors are sufficient guarantee of a proper discrimination. The work comes to us in the same dress as last year—in two volumes. Volume I. contains General Medicine, and Volume II. General Surgery, the volumes being sold separately if desired. As usual the illustrative feature is well taken care of, there being eleven full-page inserts, besides many excellent text-cuts. We strongly recommend Saunders' American Year-Book as the best work of its kind on the market.

Progressive Medicine. Fifth Annual Series. Volume 1, March, 1903. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, handsomely bound in cloth, 450 pages, illustrated. Per volume, $2.50, by express prepaid. Per annum, in four cloth-bound volumes, $10.00. Lea Brothers & Co., Publishers, Philadelphia and New York.

This invaluable periodical publication differs very materially in its scope from the ordinary year-book and epitomes of medicine and surgery. As the title of Progressive Medicine indicates, its pages are devoted to the real advances of medical science. The editors of its different departments are all scientific men and teachers of experience, and its contents are not mere abstracts of articles appearing in current medical literature. It may be compared to an advanced text-book of medicine and surgery, kept abreast of the times by continual revision and addition. Its sections are so arranged as to cover every branch of professional work without interference or repetition. It is only possible here to direct attention to the more important features in the present issue, although a vast amount of other valuable matter is included.

In the present volume, Frazier, in the section on the Surgery of the Head, Neck and Chest, describes particularly the wonderful progress which has been made in the surgery of the skull and brain, especially in the diagnosis of brain tumors and abscesses; he also particularizes the latest researches into the surgery of the thyroid gland, and some of the remarkable results achieved in recent operations upon the heart. Among other topics, he also discusses the surgical treatment of diseases of the œsophagus and stomach.

Herrick writes the section on the Infectious Diseases, devoting especial attention to the importance of Serum Therapy in the light of recent discoveries. His description of the methods in vogue in the management of typhoid fever and pneumonia is remarkably full and of great value.

Crandall, in considering Diseases of Children, describes in detail the methods of feeding and of milk modification, which are of such immense practical value in the treatment of diseases of infancy and childhood.

In the section on Pathology, Dr. Hektoen devotes particular attention to the late studies into the specific properties of the various tissues and fluids of the body. The study of Cytotoxins, Agglutinins and Precipitins is of such intricacy that a lucid explanation will prove of inestimable value to the great body of the profession, who otherwise would be unable to acquaint themselves with the recent strides achieved by workers in chemical pathology.

A. Logan Turner, in the section of Laryngology and Rhinology, presents a summary of recent achievements in the correction of nasal deformities by means of paraffin injections.

Randolph's article on Otology is devoted largely to a discussion of the methods employed in the treatment of various chronic aural conditions, heretofore considered as almost hopeless from a therapeutic standpoint.

The volume is profusely illustrated and completed with an index, which is so arranged as very greatly to enhance its value to the busy practitioner as a work of reference.

Transactions of the Sixty-Ninth Annual Session of the Medical Society of the State of Tennessee. Memphis, 1902. The Seventeenth Annual Session will be held in Nashville commencing Second Tuesday in April, 1903.

This handsome volume of transactions of the 69th annual session of the Tennessee State Medical Society is very creditable from a number of standpoints, and serves to show that the enthusiastic interest of the members of the body is fully alive. The papers and discourses are unusually interesting. The most valuable paper in the list is without doubt the scholarly address of the President, a most carefully prepared resume of the history of the organization of the body.

Therapeutics of Infancy and Childhood. By A. Jacobi, M. D., LL.D. Third edition. Philadelphia and London: J. B. Lippincott Co. 1903. Price, $3.50.

In this, the third edition of Jacobi's standard work, the author finds no reason to change to any extent his convictions as laid down in previous editions on many questions connected with the important subject of infant feeding. As he says truly, no unanimity of opinion exists among authorities, and never will so long as infants insists upon being individualities. It is unquestionably true that the soundness of a man's teaching is best demonstrated by the soundness of infant digestion and the number of living and well children.

Many editions have been made, but no actual changes in the general character of the work. The author has in great measure founded his therapeutics upon etiology; of this the profession will approve most strongly in the future as it has in the past. Nevertheless, Jacabi does not ignore pathological anatomy and diagnosis in the interest of treatment.

Of the general character of the author's teaching we may say that he is generally original, and always interesting and instructing.

A Manual of Medical Treatment of ClinicalTherapeutics. By I. Burney Yeo, M. D., F. R. C. P., Emeritus Professor of Medicine in King's College, London, etc. Tenth Edition. Volume I. Pp. xiii-696. Volume II. Pp. vii-818. Chicago: W. T. Keener & Company, 1902. Price, $5.00.

This well known English manual has been subjected in this edition (the tenth) to a revision, the third since its first publication, in 1893. This was demanded by the increase in remedial agents, by the advance in our therapeutical knowledge, and by the necessary sifting process to which the avalanche of new drugs which have overwhemed the profession with promise of remedial benefits had to be subjected to determine which of them had any real value. Inasmuch as this manual is and has been chiefly devoted to the treatment of disease, such a revision came as a necessity.

The character of the work remains unchanged, and in the form it assumes it must appeal to students and to those practitioners of medicine who are willing to be guided by the experiences and advice of others. The ready made formulæ and suggestions of drug treatment at the end of each chapter on disease furnishes them with a ready means of prescribing and supplies the thought which it would have been better for them to deduce from their own knowledge. Such methods, while they do not advance scientific medicine, have still a field of usefulness.

Abstracts of the Leading Articles of the Month.

The Future of Electrotherapeutics.

Edmund Owen (Brit. Med. Jour. Jan. 3, 1903) in an address at the first anniversary meeting of the British Electrotherapeutic Society, said that there is something in the brass balls which glitter so attractively and spit forth purple fire which does away with the common sense of the ordinary every-day Britisher. To this usually sensible person electricity is electricity. There is something mysterious and uncanny about it which leads him to suppose that his ills can better be cared for by a quack, who may too often come from the United States, than by a licensed physician. Owen mentions an experience of a friend of his who went to a prominent and exceedingly popular institution in London, devoted to the treatment of skin disease by Finsen's light and the X-rays. A man entered and asked for the physician-in-charge. "I am the nurse," said a woman, dressed in that garb, "and will care for you." She proceeded to treat him. He left and paid a guinea. I asked her what was the trouble with the patient. She replied, "That's lupus. I see so much of it I know it in a minute." She know lupus, than which there is no more difficult lesion to differeniate! He urged upon the members the crying need of a central electrical institution which should be a sort of club-house where meetings could be held and where ordinary club-life could be maintained. More than this, it would help the younger members of the society, and indeed many of the older ones, if they had some such place where every known form of electrical device was free for their use at stipulated hours. There they could take their patients and treat them, for nurses should be in attendance throughout the day. It would be the most important step toward doing away with the power of the rogue and the charlatan who now take from the electrotherapist what is justly his. He declared that so important was this therapeutic agent that a section devoted to its development should be inaugurated as an integral part of the British Medical Association, and he hoped that such a section would be created at the next Swansea meeting.

Importance of a More Radical Operation In Carcinoma Cervicis.

Sampson (Bull. J. Hopk. Hosp.) believes that carcinoma of the cervix may form metastases in the small lymph-nodes along the vessels and these nodes may have a diameter of not over one to 1.5 mm. Owing to this small size it may be impossible to feel these either in the parametrium or along the pelvic vessels and they may be discovered only accidentally or by cutting serial sections. In every case of hysterectomy for carcinoma of the cervix, the lymphatics along the pelvic vessels and also the parametrium should be removed en masse with the uterus, because an enlarged gland is not necessarily an invaded gland and cancer may be present in very small lymph-nodes which can not be palpated; therefore clinically it is impossible to always diagnose cancerous lymphatics. Should the ureter be adherent to the parametrium, the lower portion of it should be sacrificed and all the tissues from cervix to pelvic wall removed for if the ureter is dissected free the disease will probably return and a uretero-vaginal fistula will probably occur from injury to the blood-supply of the ureter. Following out these principles the steps of the operation recommended by the writer are: (1) A preliminary catheterization of the ureters with silk bougies, before the patient is narcotized; (2) after the patient is narcotized she is placed in the perineal position and a long proctoscope is inserted into the rectum in order to get rid of any gas or fecal matter; (3) a row of interlocking sutures is now placed around the vagina, three centimeters below the growth. These sutures are passed with a large, curved needle, include large masses of tissue and extend laterally as far as the needle will permit, while a finger in the rectum prevents their being passed too deeply posteriorly. After all these sutures have been passed, they are tied; (4) a retention catheter is placed in the bladder. (5) The patient is now placed into the Trendelenburg position and the abdomen opened from symphysis to umbilicus. After packing back the intestines with gauze, the ovary on the side on which the ureter is to be resected, is grasped by a pair of forceps and pulled downward and outward so as to make taut the ovarian vessels and peritoneum covering the iliac vessels. The peritoneum is now split below and parallel to the ovarian vessels as high up as the origin of the internal iliac artery. Beginning at the origin of this, he dissects downward, removing the fat and lymphatic vessels from along the iliac vessels, thus exposing the branches and removing the tissue en masse. One should never dissect upward for (*a*) the instrument may enter the angle between the branches of the iliac vessels and may tear off one, (*b*) by dissecting downward, the fat and lymphatics can be removed en masse, (*c*) it is always safer to work from a more dangerous to a less dangerous region. After exposing the vessels down to the uterine artery, the ovarian vessels and round ligaments are cut. The uterine artery is tied twice at its origin, taking care to include in the ligature the vaginal artery, should it arise from the internal iliac, but not the superior vesicle. (6) The other side is treated in a similar manner, if both ureters are to be removed; if not, the exposure of the vessels in the same and the removal of the lymphatics may be similar, and the uterine vessels are tied and cut at their origin, and then lifted up and dissected away from the ureter, taking care not to injure its outer vascular coat. (7) The uterus is now pulled upward and the bladder dissected free from the cervix and not the cervix from the bladder, for in the former, while there is greater danger of injuring the bladder, there is less danger of cutting into the diseased cervix. The dissection is carried on down to the ureters, and, if thought best, one or both are cut off close to the bladder. (8) The ureter should be amputated just above the place where the uterine artery crosses it, and all the tissues lateral to the cervix, including the lower portion of the excised ureter, may be dissected from the pelvic wall. If the lower end of the ureter is not to be sacrificed, the parametrium is dissected free mesially to the ureter. (9) The uterosacral ligaments are next cut, and the rectum is dissected from the cervix and vagina. (10) The dissection is now carried on around the growth on all sides and down the vagina to the preliminary catgut ligatures. The gaping opening of the large veins can be seen in these cases, some thrombosed and others empty, perfectly controlled by the preliminary catgut sutures. Wertheim's clamps are now applied to the vagina and the vagina is cut below them and the tissue removed. (11) The uretero-vesical implantation. The operation at present takes 2½ to 3 hours but is justifiable when one considers that after the ordinary operation, recurrences were noted in 87.7 per cent., with greater experience no doubt the operation will be done more rapidly and thus the mortality considerably reduced.

Cure of Rodent Cancer by Electricity.

W. R. Fox (Australasian Med. Gaz., June, 1902), gives an account of this operation, and details of a case upon which he successfully operated. Referring to its disputed nature, he gives twelve of the different names by which it has been known. It stands upon the border-line of cancer, being locally of great malignancy, but never causing secondary deposits. Paget, Billroth, Bryant, Quain, and others class it among cancer. Histologically, Payne considers that it closely resembles flat-celled epithelioma, but differs in origin. Its local action, though slow, is as remorseless as the worst forms of cancer. Of the three new methods of treatment—namely, the destruction of the growth by electricity, application of the Finsen light—the first only, that by electricity, is dealt with in this paper. Stohrer's bichromate battery is used, with a potential of 160 volts, and the voltage can be increased by pushing the sledge along to the required point. The two wires are attached each to a holder containing a platinum needle. A switch is placed in one of the handles by which the current is turned on or off. A milliampere meter of the "dead beat" variety is used to give a reading instantly. A current of from 300 to 1,000 milliamperes should be employed. Under anæsthesia the needles are inserted into the healthy tissue on one side of the growth, ½ in. apart; a current of 40 or 50 volts is switched on and the milliampere meter read. The current is kept on for one or two seconds only, then interrupted and reversed, and again sent through in the opposite direction for one or two seconds. The current must be increased until the necessary effect is produced. This effect is made evident by a striking and instant change of color of the soft tissues between the needles. They become yellowish white, all circulation in them having ceased; they are, in fact, dead. One needle is then withdrawn and reinserted a similar distance on the opposite side of the other needle, so as to take up a fresh piece of tissue, and this is destroyed in the same manner, and so on until the growth is completely encircled and the whole of the invaded tissue destroyed. The slough separates in from three to six days, healthy granulations cover the remaining cavity and quickly fill it up, a scar only remaining. The treatment consists simply in aiding the separation of the slough and in keeping the wound clean. Fox used a current considerably beyond 1,000 milliamperes in the case described, causing spasmodic contraction of all the muscles of the body. Though he considers there is no danger in using such a current, he recommends ether or A. C. E. mixture as the anæsthetic under such circumstances. He claims that electricity has important advantages over the three old methods of treatment, namely, excision, the application of powerful caustics and escharotics. It is free from the intense pain caused by the cautery or escharotics; after electricity there is no pain whatever; it is also a more efficient operation. There is no hæmorrhage, and therefore it is easy to avoid removing more healthy tissue than absolutely necessary. The possible contamination of the surrounding healthy parts by a knife which has just passed through invaded tissue is avoided. No sutures are required, and therefore their consequent irritation which may be a factor in causing the disease to return is absent. The cicatrix is less than after excision, as is also probably the risk of recurrence.

Early Treatment of Quinsy.

J. P. West (Cleve. Med. Jour.) believes that the advice given in some text-books as to the operative treatment of peritonsillar abscess is wrong, especially in two particulars. The first is to make the incision through the tonsil. It is rare indeed that the abscess is in, or discharges through, the tonsil. The second is to make the incision where the abscess can be seen pointing. This prolongs the suffering and almost always the abscess will open before it can be seen to be pointing. The location at which it most frequently points is above and to the inner side of the tonsil, but the place an incision should be made is where fluctuation is felt, and the time to make it is as soon as fluctuation can be felt. It takes considerable patience and some practice to locate this point early. Opening the mouth is painful, but a few trials will give sufficient room for the physician to work his finger far enough back to make a careful exploration. Fortunately these patients are usually adults and are willing to undergo a good deal for the promise of relief. This examination should be made as soon as the disease is suspected and repeated at each visit until the thing sought is found. Early in the disease all the tissues in, above and around the tonsils are hard and dense, but ere long somewhere in this dense tissue will be felt a softer spot that shows where nature is making an effort to discharge the pus, and there we can aid nature to the great relief of the patient. This spot should be carefully located with the finger so that it can be fixed later with the eye. Under a reflected light, the tongue held down with a depressor, a vertical incision should be made. Very rarely will this procedure fail to discharge the pus and put an end to the trouble.

Injurious Renal Mobility in Relation to Gynaecology; Founded on the Examination of One Hundred Consecutive Patients.

Bonney (Edinburg Medical Journal, December, 1902) mentions three classes of abnormal renal mobility: (1) Those cases in which the condition is solely one of exaggerated diaphragmatic movement. Expiratory return is present and inward rotation absent. These cases give rise to no symptoms. (2) Those cases in which the diaphragmatic attachments of the perinephric structures are relaxed or gone, with consequent failure of expiratory return, but as the perinephric and retroperineal fat still contiues to support the organ from below, inward rotation is not present. These cases give rise to none, or only very slight symptoms, but are the first step toward injurious renal mobility, into which they may eventually pass. (3) Those cases in which, from loss of both its upper and lower supports, the kidney comes to drag directly on its pedicle, as evidenced by inward rotation as well as absence of expiratory return. These cases are always accompanied by symptoms, and it is to them that the expression "injurious renal mobility" properly belongs.

In examining any woman for the cause of alleged abdominal pain, close investigation should be made of the condition of the kidneys, remembering that the finding of uterine displacements, or even inflammatory conditions in this region, does not, except in the clearly ascertained absence of other abnormities, warrant us in instantly assigning all the blame to the pelvic organs. Our diagnosis rests upon the presence of the typical backache, together with the detection by frequent examination, of the physical signs of injurious displacement.

As for palliative treatment, drugs are useless though purgatives have some slight value, seeing that constipation accentuates the pain. Any form of living that makes for obesity is good, but the most valuable palliative agent is a well fitting belt. Nephropexy is indicated in all cases in which the severity of the symptoms makes relief urgent, in all cases in which hæmaturia or pain resembling renal colic makes it possible that there may be a calculus in the movable kidney; and, generally, in all cases in which there is obvious enlargement of the organ. The commonest operative error is to fix the kidney too low in the loin, the next error is to fix it too far outward. It is always well to give the slighter degrees of injurious renal mobility the benefit of a belt before subjecting them to operative procedure.

The Evil Effects of Sugar in Subjects of Incipient Cataract.

George Wherry in The London Medical Lancet, points out that there is plenty of scientific evidence that cataract may be formed by sugar when taken in excess by animals and it seems quite probable that in many cases the consumption of sugar, though are not injurious to the general health, may hasten the formation of cataracts. He says, "I am supposing that it is not desirable to hasten, but rather to retard, the maturity of these cataracts, and in these remarks I am not concerned with methods, mechanical, or other, to hasten matters. Nor is it suggested that every patient should be restricted in the use of sugar but that some opinion should be formed in every case just as we examine the urine for sugar."

He takes the case of a man, aged sixty-nine years, who can read J. 2 readily with his glasses and 6-12 easily unaided with each eye and has in each eye equally marked evidences of lens opacity. He read without glasses until the age of fifty-five years (low myodia). He has ailments of a gouty or rheumatic character with no sugar in the urine. It would be his practice to restrict such a patient in the use of sugar and sometimes he finds that sugar has been taken in excess (sweets and chocolate). Saxin or saccharin makes a fair substitute for sugar and there can be little doubt that some of his aforesaid ailments were made worse by the careless use of sugar and thus the patient gains benefit by abstinence. Experiments on trout were made many years ago proving that cataracts in these fish were caused by sugaring the water in which they lived. Experiments more lately both in fishes and frogs have given the same results. Cataracts have been induced in rabbits by the subconjunctival injection of sugar. Weir Mitchell caused cataract in frogs by the subcutaneous injection of sugar. These, with the experiments with naphthalin by Bouchard, are most interesting in connection with diabetic cataracts.

There is thus much evidence that excess of sugar in the system will bring about cataracts and it seems probable that excess of sugar may occur without any evidence of ill health or glycosuria. In many patients with incipient cataract the use of sugar should be restricted, as it is impossible to feel sure that the sugar is harmless. In suitable cases it will be found that the general health is improved by abstinence from sugar, and among the author's notes of several thousand cases of disorder of the eye he finds sufficient evidence to encourage him in the belief that the progress of cataract has been retarded by his advice.

The Diagnosis and Treatment of Various Forms of Septic Synovitis.

F. C. Wallis (British Medical Journal, January 3, 1903) calls attention to the fact that profuse sweating is invariably present in an attack of rheumatic fever. Two symptoms which are nearly always present in septic conditions, and upon which he depends to a considerable extent in making his diagnosis, are the dry, harsh, unpleasant condition of the skin, and more particularly the restless, distressed, unhappy mental condition which exists in these patients. Monarticular synovitis, coming on suddenly in young people without any known reason, is always suggestive of gonorrhœa. If after a week of expectant treatment the joint still remains distended and shows no sign of amelioration, the joint should be opened and washed out with warm saline solution. The incision is then carefully closed. At the end of from ten to fourteen days of rest, when the incision is quite healed, the joint may gradually be used again, when massage will be beneficial. Synovitis may follow influenza. When associated with osteomyelitis the joint should be opened at once on account of the greater virulence of the microorganism, and the consequent rapid destructive changes. It may even be desirable to drain the joint for a day or two. In synovitis due to streptococcus infection, the joint must be opened freely, drained and irrigated often. The chief object is to keep the limb and preserve the patient's life. In pyæmic synovitis the rapid production of pus is really a safeguard, for the physician is then apt to open the joint promptly, drain and irrigate it—treatment which tends to preserve the limb. No joint can be properly washed out through a trocar, and no harm can follow early excision and irrigation when properly done.

Notes on Sleeping Sickness.

Wiggins (The London Lancet, December 13th, 1902) states that the sleeping sickness is very common on the shore of Kavirondo bay in Lake Victoria Nyanza; although it had only been there for fifteen months, yet half the population was affected. The author has notes of 150 cases; in none of them did he find *Filaria perstans* in the blood. The most striking sign of the disease is the expression; at the end of the first month the sufferer has a vacant expression with a drooping of the lower lip showing the teeth. At the end of the second month the manner gets listless, the face becomes puffy, and the upper eye-lids begin to droop. Later, saliva drips from the hanging lip and the whole body is filthily dirty. There are marked tremors in all the limbs and the patient is likely to fall suddenly and helplessly to the ground. At the end of the fourth month the sufferer cannot get about at all, but lies on the ground in one of three positions: (1) Flat on the ground with the face downward and resting on the hands; (2) doubled up on the left side with the limbs curled up; or (3) kneeling down and leaning forward. During this last month horrible sores develop, and the patients defecate as they lie, and a heap of saliva accumulates by the head. The eyes are closed and the patients seem unable to open them. They are also unable to speak at this stage, which lasts from a fortnight to a month, when they die. The appetite during the first two months is immense, yet there is no gain in weight. The skin is nearly always dry and scaly, sixty per cent. of the cases suffering also from *kra-kra*. The most constant symptom is a remarkable quickening of the pulse: the average pulse-rate being 133 beats per minute. The superficial glands are enlarged in every case, more constantly on the left side than on the right. There is no complaint of pain. The author treated a few of the cases with arsenic during his short stay in the neighborhood, with apparently beneficial results.

Butter of Antimony in Surgical Tuberculosis.

Garrigues (Medical Record) mentions the dangers of general infection to be feared in the local or surgical treatment of tuberculous disease in many localities. As a safe and effeetive method he recommends the use of butter of antimony which is official in the British Pharmacopeia. In tuberculous ulcers, for instance, the butter is applied to the surface of the ulcer and reapplied when the slough separates, which takes about four days. This is continued until the granulations are a healthy cherry red color instead of the whitish, opalescent type characteristic of tuberculosis. The slough varies from the thickness of a piece of paper to one-half inch, according to the degree of tissue degeneration. The sloughs should not be pulled off, but should be allowed to separate. The same method may be employed in glandular and other forms of tuberculosis, in connection with appropriate surgical intervention, providing the whole suppurating or infected surface cannot be removed. A tortuous, infected sinus, for instance, is to be slit up so it will be well under the eye before the antimony is applied.

Necrosis and Spontaneous Elimination of a Large Uterine Fibroid.

Schmauch (The London Medical Lancet) reports a case of some interest in relation to the recent discussion on absorption of fibroids. A woman, aged 43, came under his care for a tumour which reached as high as the umbilicus. She had not been pregnant for nineteen years. The period had been regular and free; for four years it was associated with severe hypogastric pain and the discharge of fragments of tissues. Recently she was troubled with free watery discharge. There was great pallor, but the blood was not much below its normal standard. The uterus was converted into a hard, tuberculated, freely movable tumour. From the vagina issued a dirty-coloured, faint-smelling, though not fetid, watery discharge, containing fibrous shreds. The os was completely dilated, and a mass soft to the touch, not unlike a flaccid amnion, presented. Fragments of fibre hung down in the uterine wall; the seat of attachment could not be defined owing to the size of the uterus. The fibrous masses were found to be fragments of a myoma in a state of necrobiosis, as in intrauterine maceration of a dead fetus. In three days nearly 1 lb. of tissue was removed by daily application of the volsella without the least hæmorrhage. Sublimate injections were thrown up, but they caused painful uterine contractions, and were discontinued. After a few days there was a rise of temperature to 102 deg., but it fell rapidly. No bleeding occurred. Ergot was given, with lysol douches; at the end of a month the uterus was reduced to the size natural at the tenth week of pregnancy. The uterine cavity measured 3¾-in.; the tip of the finger could not be passed into the os externum, and the cervix had assumed its normal shape. Fragments of tissue kept coming away spontaneously and during the douching. Schmauch notes that discharge of sloughing fibroid tumors is common, but spontaneous discharge of uninfected myoma tissue is very rare. He quotes several cases: first, Doran's, recently criticized by Murdoch Cameron; then Poloff's, where the patient was a nun, and all local treatment forbidden, the tumor gradually came away in fragments. Lastly, he refers to Backer's case, where a patient suffered from bleeding interstitial fibroid. Electricity was tried, the bleeding ceased, then big and little masses came away, till the tumor was reduced to half its size before treatment. The thrombosing properties of electricity had brought about this result; the same had been noted in other cases. In this instance the patient was not kept in bed during treatment, and there was no rise of temperature. Schmauch dwells on necrobiosis of fibroids as distinguished from sloughing, which involves septic infection. It is caused by the tumor growing too large for its blood supply, which is often limited to two or three small vessels running from the capsule into the growth. The process begins in the deepest part of the tumor; it is a kind of liquefaction, and the fluid which infiltrates the fibres gradually breaks them down. This fluid infiltration is, perhaps wrongly, reckoned as œdema by many observers. Schmauch concludes that it is by process of this kind that uterine fibroids slowly disappear about the menopause, so that, according to his views, true absorption of fibroids and necrobiotic changes in fibroids are parts of the same process, the latter being a later stage of the former.

Remarks on Acute Myelitis, and Report of a Case of Tuberculous Meningo-Myelitis.

Joseph Collins (Jour. of Nervous and Mental Diseases) says that primary acute myelitis is a rare disease, and is nearly always due to infections or intoxications. The infectious organisms that produce such myelitis are numerous, among them the streptococcus, the staphylococcus, the pneumococcus, and a special diplococcus, and many others. Myelitis may follow tonsilitis, dysentery, erysipelas, typhoid fever, gonorrhea, cystitis, puerperal fever, pneumonia, influenza, rabies, tetanus, phlegmonous paronychia, and others. Undoubtedly in many instances the germ itself does not produce the disease, but the toxine which it manufactures causes it. It is not safer however, to assume that the germ does not cause the disease *per se*, and by its local action because it is not found in the locality after death, for it is well known that the germ begins to disintegrate and disappear the moment it has exercised its malign effect.

He reports in detail the case of a young woman of twenty, who had an illness very closely resembling acute articular rheumatism, when seven months pregnant with her first child. A few weeks later however, she developed bed sores over the sacral region, the anterior superior spines and the trochanters, contractures developed in the legs, and when she gave birth to the child she was paraplegic, and suffered no labor pains because of the paralysis. She died a month after the birth, thee months after onset of the disease.

Autopsy eight hours after death. The spinal canal was lined with pus up to the second lumbar vertebra; above this point was a freshly organized layer of greenish yellow exudate apparently made up of

fibrin, pus, and coagulated serum. This layer reached up through the foramen magnum along the base of the brain, and over the optic chiasm. The brain was normal. The consistency of the cord itself was diminished throughout, and from the sixth to the ninth dorsal segments, it was so soft that it flowed on being cut. There was in short, an extensive purulent and productive leptomeningitis, and inflammation of the spinal cord, particularly in the lower dorsal segment. Microscopic examination showed absolute destruction of the gray matter in an area of this segment, extensive chromatolyses, etc., with the changes in the vascular tissues are those of infective inflammation. In one section the bacillus of tuberculosis was found imbedded in a mass of caseous necrotic tissue.

The Transference of Bovine Tuberculosis to Man.

Koch (British Medical Journal) says that we shall not arrive at facts for consideration concerning primary intestinal tuberculosis, which shall be acknowledged on all hands as reliable, until we have agreed upon exactly what is meant by the term primary intestinal tuberculosis. He says that, if tuberculous infection from partaking of meat and milk infected with *perlsucht* really occurs as frequently as it is said to, direct observation of the question has been neglected up to the present. He compares the behavior of other infectious diseases which are conveyed to man by feeding on meat and milk with the behavior of tuberculosis. After discussing the reported instances of the infection of human beings with tuberculosis from eating infected meat or drinking infected milk and passing them in a critical review, in order prove that tuberculous infection passed from one of the lower animals to man, the cases must fulfil the following conditions: (1) They must furnish certain proof of tubercle in general and, when possible, the primary focus must be supplied; such proof as may be obtained from the existence of unassailable clinical symptoms or, in the absence of these, the evidence of a necropsy. (2) Other sources of infection must be excluded with certainty. (3) In each case of alleged infection from milk infected with *perlsucht*, the condition of the rest of the people who have taken the same milk should be borne in mind. (4) The source of the milk should be attended to. Of all the cases reported in the literature as being examples of infection from animals, in only 10 is it stated that a necropsy was held and only 7 of these are said to have had intestinal tuberculosis. In only 3 cases is it asserted that the milk came from a cow with tuberculous udders. In not a single one are other possibilities of infection excluded with certainty. In no case is anything stated about the condition of other people concerned. Provisionally, we can only say that the injurious effects of milk infected with *perlsucht* and its products are not proven. The fight against tuberculosis must aim at shutting off the chief and, indeed, almost the only source of infection. This source of infection is in those consumptives who, in consequence of the unfavorable conditions under which they live or because they obstinately set aside the simplest rules for the prevention of infection, are a danger to their companions. In some way or other we must look after these sick people so that they may cease to be a danger to their neighbors.

Respiratory Exercises in the Naso-Pharyngeal Lesion in Childhood.

Lane (Brit. Med. Jour.) says that with the absence of the pressure which is exercised on the sides of the nasal cavities and of the upper part of the pharnx, the following changes occur: Narrowing of the nasal arch, increase in the height of the palate along the middle line, a diminution in the breath and height of the nasal cavities, lateral compression of the anterior nares. The mouth is kept habitually open, the temporary teeth decay rapidly, and organisms and their products pass into the stomach and produce an unhealthy condition of the gastro-intestinal mucous membrane. There is an inflammatory condition of the lymphatic tissue of the upper part of the pharynx, comprising the pharyngeal tonsil. The perfection of the auditory apparatus may be impaired. Associated with the lateral compression of the alveolar arch there is often a diminution in the length of the alveolar margin. The teeth, as a result, come in irregularly and are unable to function properly. "Open bite" is often associated with this condition. As the children find difficulty in chewing their food, the food is taken in a soft form or bolted. Consequently the muscles which move the tongue and lower jaw are but little used, and the tongue does not develop, but remains small. Enough has been said to show that all these troubles may be avoided altogether, in the majority of cases, if proper measures are adopted from the first, or if they have developed they may be removed or very greatly diminished by proper attention to the aeration of the lungs, the ventilation of the naso-pharynx, and to the proper performance of the functions of the body.

Convulsions in Typhoid Fever.

Hodlmoser (British Medical Journal) reports an interesting complication of typhoid fever. The clinical history is as follows: The patient was a schoolmaster, aged 40, and was taken ill one week before admission into hospital. He was a weakly individual, and was pale and thin. The symptoms of his illness were well marked, consisting of fever, dry, furred tongue, slight bronchitis, and enlargement of the spleen. During the following week the stools were frequent and typical of typhoid. Up to this time he had shown no disturbances of cerebral function. A little later peculiar movements of the head and twitchings of the corners of the mouth were seen. The movements became extremely intense on the ninth day of his stay in hospital, and on the following day, although the temperature had been lower during the few days preceding than before, the patient became very restless, was delirious, and at about midnight was attacked by very severe convulsions, which lasted for about an hour and a half. The movements of the head and twitching of the mouth continued during the next day, and at night time the convulsions again returned. These appear to have been of the type of eclamptic convulsions, and were of great severity; they kept on recurring for about three hours. The temperature had become raised again during the attacks. During the rest of the night he lay quite unconscious, and on the following morning he was only so far conscious as to be able to utter some inarticulate sounds. The urine had remained during the whole period free from albumen. The patient made an uninterrupted recovery after the second night of convulsions. The diagnosis of enteric fever was confirmed during convalescence by a markedly strong Widal's reaction. Hodlmoser discusses the significance of the attacks at some length.

The Education and Development of Neurotic Children.

Hammond (N. Y. Medical Journal) says that the question suggests itself whether there is any way during infancy of determining whether or not a child is of a neurotic predisposition. Often this cannot be done, but in many instances we see children in infancy acquiring diseases which clearly indicate that they have a neurotic predisposition; thus, infantile convulsions from such causes as indigestion, dental and intestinal irritations, chorea, night-terrors, and kindred nervous disorders clearly indicate the nervous child. As a rule, however, the neurotic condition begins to be displayed toward the fifth or sixth year or upward. Exceptional mental ability without corresponding physical strength is sometimes the early and only manifestation of the neurotic temperament. If precocious and clever in early youth, as neurotic children frequently are, they fail to achieve those positions in life which their early mental brilliancy seemed to promise. With the advent of puberty, or even before this time, nervous disorders are most likely to show themselves. In many instances the degenerate condition of the nervous system is shown in the character of the children; they are fretful, nervous, irritable, changeful in mood. It is at this time that migraine usually begins, epilepsy develops, and neurasthenic and hysterical conditions have their origin, The author holds that the neurotic predisposition can be effectually eradicated by a proper course of physical training conjoined with proper hygienic surroundings. With careful attention to the diet, sleep, various bodily functions, fresh air, and proper clothing, in addition to systematic, well-regulated, and long-continued physical culture, there should be no remains of neurotic predisposition as the child enters into manhood. The physical culture of such children should be carefully conducted; where a moderate amount of exercise builds up, too much exercise breaks down. The age and physical condition of each child must be taken into consideration, and such exercises, preferably outdoor, should be followed as circumstances permit. Whatever those exercises may be, the proper point is their continuance with regularity for years. Practical experience has shown that by the methods just suggested children of undoubted neuropathic tendencies may without the shadow of a doubt develop into perfectly healthy men and women.

Intestinal Obstruction Due to Gall-Stones

Barnard (Annals of Surgery) publishes three original cases of obstruction of the bowel due to the presence of gall-stones and relates the histories of five other cases. In commenting on the records of the London hospitals he found the proportion of cases of obstruction due to gall-stones as compared with all other causes to be one in forty-five. The sex presented some interesting points. Although gall-stone obstruction is found five times more frequent in women than in men, Barnard found only six patients were women. The obstruction was usually found in patients over 55 years of age. One patient was 37 and another 32. It is maintained that spasm of the intestine at and below the stone is responsible for the greater part of the obstruction and that strangulation of the bowel does

not take place. There is simply an obstruction to the passage of the normal contents of the small intestine, without any reference to the circulation. Paralysis of the bowel is not complete, constipation is not well marked, and the abdomen in the great majority of cases is neither tender nor distended. The most prominent symptom is severe and persistent vomiting. The vomited matter is at first bilious and afterwards fecal. In one of the author's cases he could distinctly feel the stone in the region of the ilco-cecal valve. In summing up the symptoms, no importance should be given to previous biliary attacks for a stone that is large enough to cause obstruction does not come down the common duct, but ulcerates its way into the bowel. Jaundice and biliary colic are seldom present. The author's opinion confirms that of others in regard to the high mortality after operation for obstruction. Of eight cases, seven were operated upon and of this number four died.

Incontinence of Urine in the Female.

Adams (The Post-Graduate) reviews the subject of urine incontinence, as it occurs in early childhood and laying sufficient stress on the fact that these cases tend toward natural recovery as late as the twenty-first year, the author gives a succinct account of the same condition as it occurs in the adult female. Among the principal causes noted in the cases not distinctly persisting from early childhood, and also omitting idiopathic cases of neuropathic origin —are frequent or severe labors, forcible dilatation of the urethra for stone [or for cystoscopic examination—reviewer!], palpation of the bladder with the finger, operations on cicatricial bands or folds in the neck of the bladder, calculi and polypoid growths at the neck of the bladder, contracted bladder with hypertrophied muscle-wall, after operations for vesico-vaginal fistula in old cases of cystocele, and in cases of tubercular disease of the bladder.

Although medical and electrical treatment may be resorted to as palliative measures these cases ultimately fall into the surgeon's hands. The operation of Gersuny consists in dissecting out the urethra and twisting it upon its long axis through an arc of 180 degrees or more. In this position it is held by sutures. Ponsson's operation, in addition to the above procedure, consists in incising the vestibule well up to the clitoris, turning back the lateral flaps, drawing the urethra well up toward the clitoris, anchoring it in this position, and suturing the flaps over the urethra.

He adds to these a new operation which he successfully performed recently on a patient suffering from this disorder, and which consisted briefly in plastic work on the anterior vaginal wall, which resulted in swinging the bladder well up in the pelvis, drew the urethra taut under the pubic arch, and effected a diminution in the calibre of the urethra.

The Operative Treatment of Tubercular Arthritis.

Townsend (Inter. Med. Mag.) says that the most frequent indication for the performance of an operation in tubercular arthritis is the appearance of an abscess. The next is deformity. The least frequent indication is the removal of a tubercular focus, with the idea of curing the disease and restoring the patient to health, even though no complications exist and he may be doing well. X-ray photography and better diagnosis will perhaps change all this. When septic complications supervene, the tendency of the day is to operate sooner than was formerly done. In the articulations of the smaller joints, the fingers and toes, arthrotomy or arthrectomy will usually enable one to remove all the diseased tissues, although when the disease is very extensive an excision or amputation may be required. In the ankle joint arthrotomy or arthrectomy usually suffices. Excision is not desirable here, as it is so difficult to secure bony ankylosis and flail joint renders locomotion most difficult. If it is performed, an arthrodesis of the mid-tarsal or Chopart's joint is desirable, as it holds the foot much firmer. At the knee arthrotomy and arthrectomy are most satisfactory in early life, and excision should not be practised, except in very rare instances, before the age of eighteen, as the resulting shortening and tendency to deformity render the results most unsatisfactory. If excision is done apparatus must be worn for many months after the operation. At the hip arthrotomy or arthrectomy is not very satisfactory, and excision and amputation have to be considered. In suppurative hip-joint disease amputation is not done as frequently as it should be. In the wrist arthrotomy or arthrectomy may be of value; excision and amputation are rarely indicated.

The Importance of the Early Treatment of Catarrhal Conditions of the Upper Air Tract in Children

Cobb (Annals of Gyn. and Ped.) says that the question naturally arises, in what way and to how great an extent does the condition of the upper air tract in children affect the general health? Nasal obstruction, from whatever cause, leads to disturbances of sleep, to anemia from lack of sufficient oxygenation of the blood, to mal-

formation of the chest wall, and to various reflex nervous disorders. Secondly, the mouth-breathing, and often the extension of the inflammatory process, cause attacks of bronchitis, and often the only way to prevent successfully the repeated attacks of bronchitis from which these patients suffer is to treat the nasal condition. Thirdly, there is no doubt but that these patients suffer from disorders of digestion from swallowing large quantities of the secretion of muco-pus which is constantly present in the throat, and which they have not the knowledge nor ability to expectorate. Fourthly, the presence of this inflammatory condition in the nose and throat is a fruitful source of infection of the cervical glands, and many cases of cervical adenitis, now classed as scrofula, are directly traceable to this inflammatory condition. Fifthly, many cases of general systemic infection are now known to have their origin in either acute or unrecognized septic conditions of the throat. As an illustration it is only necessary to allude to the reported cases of endocarditis and acute articular rheumatism caused by the products of a tonsillar abscess gaining access to the general circulation. With this formidable array of deleterious conditions which may, and often do, result from the neglect or non-recognition of these conditions of the nose and throat of children, it seems hardly necessary to urge the importance of careful attention to them.

Intraperitoneal Hemorrhage.

Cullingworth (Jour. Obst. and Gyn. Br. Emp.) lays stress upon the following symptoms in making a diagnosis of diffuse intra-abdominal hemorrhage due to rupture of an ectopic gestation: (1) The fact that at the moment of the attack the patient was in her usual health. (2) The gradually increasing pallor of the patient, and the gradually rising pulse rate with a corresponding rise of temperature. (3) The extreme tenderness of the abdomen; this marked tenderness may be observed when there is no visible sign of inflammation. (4) If a menstrual period has been missed or is overdue the diagnosis of the case is greatly facilitated; but it does not follow that, because menstruation has been regular, rupture of an ectopic gestation may be excluded. (5) Of less importance is the detection of free fluid which is occasionally obtained in patients with thin walls and extensive effusions. On vaginal examination the signs are not very definite. There is often a slight hemorrhage from the vagina. It is now unanimously agreed that in this condition prompt surgical treatment is required. In pelvic hematocele to two most constant symptoms are irregular hemorrhage and pain. The discharge is for the most part dark in color, moderate in amount, fairly thick in consistence, and steady in its flow. The pain is usually sudden in its onset and at first very severe, and in a few hours may for the time pass off altogether. Among other symptoms may be mentioned faintness and vomiting and an occasional rise in temperature.

Appendicitis from a Physician's Standpoint.

James Tyson (Journal American Medical Association) states that in the course of his observation he has noted that in appendicitis there occur a certain number of cases so evident and decided that no one questions the propriety of an operation, these are all characterized by the cardinal symptoms of sudden and severe pain great tenderness in McBurney's point, the rigidity of the rectus muscle with or without tumor, with moderate fever and frequent pulse and the only relief obtainable is by operation. Cases in which the symptoms remain permant, although with diminished severity, subject to exacerbation may be termed chronic appendicitis and yet other cases in which the symptoms abate and disappear, to remain altogether absent in a few cases, but recurring in many with growing severity until relieved by operation or the patient is carried off by a final fatal attack.

The first set of cases he says require no comment, the second, that of chronic appendicitis with excerbations, about which there is usually no uncertainty as to diagnosis should give rise to no doubt as to treatment, althongh the author states that there are still a few physicians who prefer to jeopardize the lives of their patients by deferring operations, which should be done without delay. The third class of cases are those in which a seeming attack of appendicitis is followed by apparent recovery; the author emphatically states that in all cases where the actual and undoubted existence of an appendicitis can be shown, laparotomy should be done and the appendix removed if the services of a competent surgeon can be secured.

As regards the diagnosis of appendicitis the author says that it is not always easy and is very often very difficult and that unless such a diagnosis is plain to both physician and surgeon operation should not be done. Not every case of pain and tenderness in the region of McBurney's point is an appendicitis and as the author says, it is the operation based on an imperfect diagnosis which finds a normal appendix, which causes men to say, on the one hand, that operation was unnecessary; on the other,

that cases of appendicitis get well without operation.

He further says that he does not deny that appendicitis may get well without an operation, but he says that if the instances referred to were eliminated, the number of recoveries without operation would be greatly reduced and in some respects the unfortunate event of finding a normal appendix will be much more infrequent.

He says that while he admits the possibility of spontaneous recovery from appendicitis, he believes that such cases are infrequent and that when taken in connection with the fact that every single attack of appendicitis predisposes to another and more serious one, and this fact, that all classic signs of an appendicitis may disappear and yet the appendicitis remain, he believes that the appendix in every case of well-founded diagnosis should be removed in order to insure the life of the patient.

Acquired Dislocation of the Hip in a Child.

MacDonald (The London Medical Lancet) describes the following interesting case: On August 16, 1901, a female child, aged two years aud eight months, was brought to the writer by her mother, who stated that the patient had fallen that morning, and in consequence of the fall, was unable to walk. Further questioned, the mother said that her three children were playing in a bed-room with a miniature theater when one of the figures dropped from the stage, and the child, in rushing across the room to pick it up, tripped over her brother's foot and fell upon the floor. The brother raised her and set her on her feet, but found she could not stand. The mother finding her in this condition, carried her straight to the writer's house. Although a bright, healthy little girl, she was much frightened, and resisted examination, so was sent home and seen later. The objective appearances were marked distortion of the left hip and undue prominence of the gluteal region. The limb was abducted and rotated inward, the thigh was bent slightly upon the abdomen, and the leg was flexed upon the thigh. The lower end of the femur crossed the lower third of the opposite thigh and the ball of the left great toe rested upon the instep of the right foot. There was, roughly, about one and a half inches of shortening, although this observation was not verified by measurement. The left trochanter lay well above Nelaton's line, and on rotating the limb, the head of the femur could be felt considerably above acetabular ridge. From these characteristics there was no doubt that a dislocation of the head of the femur on to the dorsum ilii existed. Under chloroform, reduction by manipulation was attempted, but failed. Having, therefore, instructed the mother to fix the pelvis, the thigh was flexed at right angles to the abdomen, and slow, steady traction made in an upward direction. The limb was then adducted and rotated inward, and the caput femoris slipped into the cavity of the acetabulum with a distinct click. The limb was put up in a Liston's long splint and secured by a spica bandage. At the end of four days the splint was removed and the patient was permitted to lie on a sofa until the eighth day, when she was allowed to go about and it was found that her recovery was complete. With regard to the relative frequency of dislocations of the hip in children, the author has no statistics to offer, but finds that Erichsen tells of two cases which he met with in his own practice. In one of these —a child aged one-and-a-half years, the head of the femur was dislocated on to the os pubis; in the other there was dorsal dislocation in a boy six years old. Erichsen also mentions that Kirby had seen a case of dorsal dislocation in a child aged three and a half years, while Travers had a dislocation of the hip in a boy five years of age.

Intravenous Injections in Syphilis.

Bonzitat (Edinburgh Medical Journal) advocates intravenous injections of mercury in syphilis. He uses a 1 per cent. solution of the cyanide injected into one of the veins in the bend of the elbow. Injections are made with a glass syringe with a platino-iridium needle, 1 c.cm. of the solution being injected every other day. If there is salivation or diarrhœa, the injections must be stopped for a time. In severe cases, such as cerebral gumma or myelitis, injections should be made daily. The advantages of this method are said to be as follows: Simple techniques, painlessness, absence of induration, rapidity and certainty of action, small dosage, less liability to mercurialism, exact dosage; also the injections can be made more often than in the case of hypodermic or intramuscular injections. If performed carefully and aseptically, no reaction occurs at the puncture. The disadvantage is said to be the danger of thrombosis or embolism, but this, according to the author, is theoretical. It was thought that if perchloride of mercury was used for injection, it might cause coagulation of the blood in the circulation, as it does in blood removed from the body, but the quantity injected is so small compared with the mass of blood, that such an event is hardly possible. The only contra-indication to the method is in cases where the veins are not sufficiently prominent, as

in some women and fat subjects. The injections may be used in all forms of syphilis and at all periods; but they are most useful in grave cases which require energetic treatment, such as phagadenic chancre, severe ulceration, early syphilis of the nervous system, etc. In tertiary syphilis, according to the author, the best results are obtained. Finally, the author thinks it possible that intravenous injections may be successful in general paralysis, tabes, aneurysm, and other parasyphilitic affections, which possibly resist certain methods of treatment, but not others.

Conservative Operations on the Ovary.

L. H. Dunning (Am. Gyn., Dec., 1902) believes that operations upon sterile married women are unfavorable, and most unfavorable upon such barren women as are determined to bear children. Under other conditions, where it is possible to do so, it is best to leave in as much of the diseased ovary as is possible. Especial stress is laid upon the wholesale removal of cystic ovaries, many of which the writer believes to be removed unnecessarily. The following are the conclusions arrived at: (1) Operations upon ovaries that preserve the menstrual and reproductive functions should be employed in lieu of complete extirpation, especially in cases of extirpation of one ovary and where the remaining ovary shows, as pathological changes, a single cyst of moderate size, or several small cysts, or a single small hematoma; (2) healthy displaced ovaries may, with advantage, be anchored in as nearly normal position as possible by stitching them with fine catgut to the posterior surface of the broad ligament or by shortening the infundibulo pelvic ligament; (3) cases of sterile married women and women who are using means to prevent pregnancy are unfavorable subjects upon whom to do conservative operation upon the ovaries; (4) the writer believes that in pus cases, such conservative operations should, as a rule, be avoided.

Traumatic Rupture of the Spleen.

Daniel N. Eisendrath (Annals of Surgery, Dec. 1902). Ruptures of the spleen, without external signs of injury, are more frequent than those due to gunshot or stab wounds. Pathological spleens are more prone to rupture. Of 131 cases reported 82 occurred in pathological organs. Rupture of the spleen is very apt to occur in tropical countries where the organ has been previously enlarged by malaria.

In 392 cases of injuries of the abdominal viscera, Makins found eighty-nine cases of rupture of the viscera. The largest number were those of the kidney (39 per cent); next were those of the liver (23.59 per cent) and last those of the spleen.

The injury is usually caused by direct violence, as a horse kick or to some force which crushes the thorax and abdomen in an antero-posterior or lateral direction. The former mode is much more frequent.

The symptoms are (1) severe pain, (2) internal hemorrhage or collapse, (3) dullness in the flanks, changing with change of position, and (4) rigidity of abdominal muscles.

The prognosis without operative interference is bad. Cases recovering spontaneously are rare. The earlier the diagnosis and operation the better.

Treatment should always be operative; removal of normal spleen causes slight if any changes in the organism. Splenectomy should be done if the injury is extensive; the tampon may be used if it is slight; sutures are of little use owing to the friability of the organ.

The Treatment of Nocturnal Incontinence of Urine in Children.

Frank Tucker Hopkins, (New York Medical Journal) considers this a symptom of some disturbance in the equilibrium of the action of the bladder muscles rather than a disease.

The causes being direct or reflex; those acting outside the bladder as general muscular debility which is participated in by the sphincter or the persistence of the natural infantile weakness of that muscle generally accompanied by a neurotic disposition. Those within the bladder being highly acid urine, or distension.

The reflex causes are regarded as the more frequent and include disturbances in the digestive or generative organs, resulting from adherent prepuce or phimosis in boys, adherent clitoris or vaginitis in girls. Indigestion by causing a highly acid urine is also a factor.

The treatment in the cases of debilitated children is a general tonic one. Strychnia, iron, arsenic, cod liver oil, good food, cold sponging with static electricity.

In cases where conditions exist which produce spasm of the detrusor muscle, atropine or belladona is given in doses of 1-100 to 1-75 of a grain of the former to $\frac{1}{4}$ to $\frac{1}{2}$ a grain of the latter. Tincture of lycopodium in doses of 15 to 30 minims four times a day is also recommended, and where the irritation is a reflex one from disturbance in the genital tract such as may produce erections the addition of bromide is advised. The passage of sounds is also highly commended.

Indigestion and constipation should be

carefully regulated, forcible dilatation of the sphincter is recommended for the latter condition and in addition the clothing should be warm, the feet kept dry, proper exercise should be provided, the patient should retire early and be aroused to urin ate about ten or eleven o'clock.

Constitutional condition neurosis, syphilis, tuberculosis or diabetes should receive appropriate treatment.

Infective Arthritis.

H. March (The London Medical Lancet). In the first form of infective arthritis mentioned, namely, that which consists of a transient synovitis, arthritis soon subsides, often in the course of four or five days, and the joints completely recover. A suitable splint and warm fomentations will be the only treatment required. In the second group, in which the cavities contain fluid, the treatment called for is clear. It is the same as that which should be employed in gonococcal infection, where infusion has occurred. The fluid must at once be removed and the joint freely irrigated, either with carbolic lotion, one in 100, or with mercurial solution, of which, perhaps, the best form is biniodide, one in 1,000. To evacuate the fluid a full-sized trocar and cannula may be used, and irrigation may be readily performed through the cannula, or the joint may be opened by an incision at the side of the patella. If the fluid proves to be already purulent, the joint must be freely opened and the finger inserted to break down any adhesions which may have formed and behind which pus may be imprisoned, and thorough and copious irrigation must be carried out. The immediate improvement and complete recovery observed in Mr. Page's cases after evacuation and irrigation was very striking, and it has its parallel in what many surgeons will have observed in cases of pyemia, namely, that when a joint has become distended with pus, if it is freely opened and copiously irrigated it may forthwith undergo a startling improvement, and, if the patient survives, may completely recover and retain absolutely free movement. In the third or plastic form, prognosis is distinctly unfavorable. The arthritis tends, as has been said, to extend over a considerable period. A large amount of new fibrous tissue is developed, both between the articular surfaces and in the peri-articular tissues, and the joint is converted into a massive scar, so that firm fibrous ankylosis, which may subsequently become boney, results. This strong tendency toward ankylosis is, the author thinks, one of the especial characteristics of infective arthritis. Nor are any means known at present by which it can be prevented. As to treatment, the best that can be done is to keep the joint, for the time being, at complete rest; indeed, the pain is such that no alternative can be thought of. Warm boric or opiate fomentations are required during the most acute stage, but when swelling and heat have somewhat subsided, a succession of small blisters will alike relieve pain and promote absorption. Later still, massage will be required to remove the swelling of the soft parts. A very important question is whether, in these cases, manipulation should be employed with the object of restoring movement. In the slighter cases this is advisable, but when the inflammation is either severe or prolonged, *a fortiori*, if it is both, the joint becomes filled up with cicatrical tissue and the restoration of movement is impossible. Forcible manipulation in such condition is not only useless but definitely mischievous, for it renews irritation and promotes the formation of scar tissue. Moreover, he has seen instances in which manipulation has left a joint, previously free from pain, so sensitive and painful for many weeks that it was necessary to keep it at complete rest, so that instead of being diminished, stiffness was increased. In the fourth group prognosis is highly unfavorable, for the arthritis is but one of the manifestations of a general septicemia and is often associated with other lesions of the gravest kind. Often the arthritis is rendered comparatively unimportant, except for the suffering it entails, by the speedy fatal termination of the case. In those rare cases, however, of which the septicemia is of a milder type and other local developments are absent, if the joint is at once freely opened and irrigated, repair may take place, sometimes with ankylosis, sometimes with restoration of considerable or even complete, free movement.

Splenic Anemia.

Osler, in the American Journal of the American Sciences, gives a discussion of this subject. He reports the subsequent histories of 4 of the 15 cases described in his previous paper, one of which apparently belonged to the group of pernicious anemias. The additional cases he describes he says: Case 16. A man, 30 years of age, had had a large spleen, and pallor for 9 years. For 4 years he had had severe attacks of hematemesis, and often he had melena. The spleen was removed, but during the operation there was profuse hemorrhage, and death occurred a few hours later. Case 17. A woman, 40 years of age, had had melanosis 18 years before. The splenic tumor had been recognized for 11 years. In the latter part of her sickness

she had had a second attack complicated by jaundice, and one year after this a third attack in which the anemia was especially profound. The liver was also enlarged. Case 18. A man, 33 years of age, had recognized enlargement of the spleen for 15 years. There was considerable pigmentation, slight enlargement of the liver, jaundice and secondary anema. When admitted, the patient had slight fever. On expectant treatment he improved and was discharged. He has been able to obtain the notes of 45 cases from members of the American Medical Association. The author groups them as follows: Acute anemia of less than a year's duration, with enlarged spleen. In this group there were 12 patients, but none of them had a history of malaria. In 8 of them the red bloodcells were less than 2,500,000, and in one less than 1,000,000. The leukocytes were less than 6,000 per cmm., with the exception of 2 patients in one of whom the leukocytes were 7,000, and in the other 20,000 per cmm. There were 26 patients with chronic anemia associated with enlarged spleen. Eighteen of these were men. The duration ranged between 2 and 11 years, although in several it was spoken of as many years. In 2 of these patients the leukocytes were less than 1,000 per cmm. and count was normal or low in all. Finally, there were 2 cases of simple splenomegaly, and 5 that could not be classified. He defines chronic splenic anemia as "a chronic affection, probably an intoxication of unknown origin, characterized by a progressive enlargement of the spleen which cannot be correlated with any known cause, as malaria, leukemia, syphilis, cirrhosis of the liver, etc., (primary splenomegaly); anemia of a secondary or chlorotic type; leukopenia; a marked tendency to hemorrhage, particularly from the stomach; and in many cases a terminal stage with cirrhosis of the liver, jaundice ascites (Banti's disease)." Osler abstracts the histories of 15 cases that he believes belong to this group. The etiology of the disease is not known. Heredity usually plays no part, but Brill has reported 3 cases in one family. Among the symptoms are, first, the remarkable duration of the disease; the enlargement of the spleen without apparent cause; the hematemesis recurring for a number of years; the anemia which is characterized by a moderate reduction of the number of corpuscles, a great reduction in the percentage of hemoglobin, and leukopenia. There is often pigmentation or bronzing of the skin. In some of the patients cirrhosis of the liver occurs, and in a small number ascites is present. Among the other symptoms jaundice sometimes occurs. After discussing some of the other conditions in which enlargement of the spleen and cirrhosis of the liver occur, Osler states that the condition found in the spleen is chiefly a fibrosis or hyperplasia with atrophy of the pulp and hyaline degeneration of the Malpighian bodies, or a change by which the normal texture is largely replaced by fibrous tissue and large endothelial cells with clear protoplasm containing 2 or more nucleli and among them giant cells. The disease probably represents a chronic toxic, rather than an infectious process. The best name is probably splenic anemia. The treatment consists in splenectomy. In the author's series it was performed on 3 patients, 2 of whom died as a result of the operation, and one recovered.

Influence of Drugs on Blood Pressure.

Briggs (Johns Hopkins Hospital Bulletin) publishes a series of observations made on blood pressure in cardiac diseases, as measured by a modified Riva-Rocci instrument. The writer found that in patients accustomed to the use of alcohol the ingestion of ½ to 1 ounce of whiskey will usually produce a temporary rise of blood pressure, never lasting more than thirty minutes, and followed by a fall below the usual level. The total effect of alcohol on the vasomotor system, therefore, is one of depression. It was observed that the ingestion of 10 to 15 drops of tincture of capsicum caused a rise in blood pressure equal to or even greater than 4 to 6 drams of whisky and its use was followed by no depression. Strychnia hypodermically in moderate doses was found to cause a rise in pressure somewhat delayed as compared with that after alcohol, but continuing with far more steadiness, and persisting for from one to three hours. A similar rise in blood pressure, with more rapid onset and somewhat less permanent, was found to follow the administration of digitalin. The blood pressure raising effect of these drugs was not followed by any phase of depression, as in the case of alcohol. During the routine administration of these stimulants, especially with strychnin given over long periods, the blood pressure response to any single dose may be apparently absent, and in any case will be less marked than that following the first few doses given to the patient, but in these circumstances if the routine order be suspended for one or two periods, the blood pressure will be seen to fall in the absence of the stimulant, to return to its former level when the drug is resumed. This constant blood pressure level, as maintained by the use of strychnin and digitalin at regular intervals, represents the ideal to be sought after in the stimulant treatment of

the toxic conditions, as illustrated especially in the severe cases of typhoid fever. In this class of cases alcohol, not being a true cardio-vascular stimulant, does not contribute to the maintenance of the "stimulation level" of the blood pressure curve, and the rational basis, for its use must be sought in some alteration in metabolism, and not in any assumed improvement of the force of the pulse. Subcutaneous infusions of normal saline solutions, contrary to general opinion, have no stimulant action on the pulse.

Fingernails.

F. J. Leviseur (Journal of Cut. and G.-U. Dis.) calls attention to an affection of the nails which is of parasitic origin, though not due to any well-known vegetable parasite. The following are the points he offers: It has been seen only in adults, where it is usually found in combination with seborrhoic eczema and pruritus ani or scroti. It attacks the nail-plate primarily, starting from the region of the lunula, and very quickly spreads all over the nail. The individual lesions are minute, round, shallow holes of the size of a very small pinhead, arranged sometimes in regular concentric lines. The entire surface of the nail-plate is covered with them. When the disease starts on its way to recovery the lesions slowly disappear, beginning at the proximal end. The nail is not shed, but the clearing-up keeps pace with its physiological regeneration. The affection somewhat resembles that described by Hebra, Lailler and Schutz (etat pointille des ongles—thimble-nail) which was found to be a characteristic and early symptom of psoriasis. But it never begins, like the latter, with bright red points, hyperemic in character on and around the lunula. The individual lesions are of much smaller size. Furthermore, he has never seen it together with psoriasis elsewhere on the body. On nine cases, which he has collected so far, three were physicians, one a lawyer, one a waiter, two women occupied with ordinary housework, and two business men. The men's attention in every instance was called to their diseased nails by the absence of the natural gloss of the nail-plate, giving it a disagreeable, dirty appearance. Five cases had a seborrhoic eczema, some on the scalp, some on the body, or both. In one male case there was present a seborrhoic eczema of the scalp and body, and pruritus ani. The women, who were dispensary patients, hardly knew of the presence of this affection. One woman had general pruritus; the other was to all appearances free from any skin affection. As a rule a number of fingers are attacked. In one case it was only the thumb of one hand. The disease has no tendency to appear symmetrically. Frequent manicuring or vigorous therapeutic measures aggravate the condition and often obscure its character by producing an eczema of the surrounding skin. If an alkaline solution is applied to the diseased nails, they are liable to assume a dirty brown color. This is particularly the case after an application of liquor carbonis degenerens, the discoloration remaining for a surprisingly long time. As stated above, a microscopical search for vegetable parasites was futile. In regard to treatment, he has found that salves do not make any impression upon the disease. In four cases a cure was affected by the use of a one-per-cent. solution of permanganate of potash. The fingers were bathed for 10 minutes twice a day, and the discoloration due to the permanganate then removed by a second bath consisting of a two-per-cent. oxalic acid solution.

Electrothermic Hysterectomy.

A. J. Downes, (Am. Gyn., Dec., 1902) believes that all malignant cells at the line of section should be killed; the lymphatic leading from this line should be sealed and rendered non-absorptive. Electrothermic hemostasis alone can fulfil these requirements. The outfit for electrothermic hysterectomy consists of three angio-tribes, all alike except in the size of the blades which vary in width only. The heating apparatus is such that the acting blade can be brought to the proper temperature in from ten to twenty seconds ascording to the size of the blades. The cable is made in two parts, one, which does not require sterilization and brings the current from the transformer to the operating table, the other, flexible and covered with lava strips, can be sterilized and be placed with our instruments. They are connected at the edge of the operating table. The author's knife is required. Where there is no street current a storage battery of 75 ampere hours' capacity when fully charged will give sufficient current for the three major operations. By this method the author has performed five hysterectomies for cancer. The forceps are applied as in the application of the angio-tribe, and then the uterus is cut away by means of the electrocautery knife. The operations were less bloody than by the ligature method. As a type of operation that can be done by this method, it can be said that any hysterectomy that can be performed by ligature, can more readily be done by electrothermic hemostasis. He thinks that any operation so practicable as this method, is worthy of serious consideration and should be given a fair and honest trial.

The Treatment of Pleurisy with Effusion.

Delafield (American Journal of the Medical Sciences, December, 1902.)

It is contended that the treatment of pleuritic effusions should be aspiration, almost to the exclusion of drugs. This reverses the ordinary method, which is to wait until the effusion embarrasses respiration, or if it becomes stationary and resists ordinary methods, then to resort to tapping. Aspiration is a proper treatment for pleurisy, which should be resorted to as soon as fluid is found in the chest. In the last fifteen years the writer has treated 200 cases of pleurisy by tapping. The first 82 of these had the routine treatment of iodide of potassium and digitalis, combined with tapping. The remaining 118 cases received no medicinal treatment whatever—simply tapping. None of the patients died, and none seemed to be injured by the operation. There was no local infection following the tapping. The time from the onset of the disease until the first tapping varied from seven months to three days, the largest number falling between the tenth and twentieth days, and from this period decreasing from the two extremes. In more than one-half of the cases the duration of the pleurisy before aspiration was between ten and thirty days. In all of the cases the pleurisy was going on as an inflammation up to the time of the aspiration. The patients recovered at varied periods of from one to six weeks. One hundred and forty-two cases were tapped once, 45 cases twice, 9 cases three times, and 4 cases four times.

Talma's Operation.

Greenough (American Journal of the Medical Sciences) concludes that the condition known as biliary cirrhosis with enlarged liver, jaundice and fever and without ascites, is accompanied in a certain proportion of cases by infection of the bile ducts. The drainage of the bile ducts by cholecystostomy is a proper operation when such evidence of infection is present, and symptomatic treatment has failed to relieve. Of 105 cases of liver cirrhosis which presented the symptoms of ascites, 42 per cent. were improved and 50 per cent. not improved by Talma's operation or one of its modifications. The mortality within thirty days was 29.5 per cent. Nine cases were improved in health two years after the operation, these presenting no marked differences in general character from the others. Cases where the liver was enlarged gave a lower mortality and a higher percentage of improvement than cases of atropic liver. Cases of suture of the omentum between the layers of the abdominal wall gave a lower mortality and a slightly higher percentage of improvement than cases where only peritoneal surfaces were brought in contact. Drainage increases the danger of sepsis and peritonitis and should be avoided. Tapping may be done, if necessary, after the operation. The presence of adhesions and perihepatitis is of good prognostic import as regards the success of the operation, while the number of tappings before operation and the presence of edema of the feet and legs are of less prognostic importance than the general condition of the patient, the size of the liver and the functional activity of the liver cells. Talma's operation or one of its modifications is of proved benefit in a certain limited number of cases of liver cirrhosis, primarily for the relief of ascites, and secondarily for the relief of other symptoms of portal congestion. The dangers attending the operation are mainly due to the weakened resistance of the patient, rather than to the operation itself. More judgment should be exercised than has hitherto been the case in the selection of cases. The operation is not indicated in ascites due to other causes and is contraindicated in the presence of renal or cardiac disease, and when evidence does not exist that sufficient functional liver tissue remains to maintain life. It is also contraindicated when complications exist sufficient in themselves to make the results of operation uncertain.

Pathology of the Tissue Changes Induced by X-Rays.

Ellis (Proc. of Path. Soc. of Phil. Dec., 1902) has studied four cases of malignant tumor, which were subsequently removed by operation, with the following results: There was found (1) necrosis of cell and trabeculæ of varying degree; (2) increase of elastic tissue; (3) fewer areas of lymphocytic infiltration; (4) a tendency of occlusion of vessels by deposits on their inner surface; (5) practically entire absence of infiltration of polynuclear leucocytes. Conclusions are hardly warranted by these results, especially as further studies are made with reference to nerve changes. A few thoughts, however, suggest themselves: (1) Some lay great stress on the blood-vessel changes as a cause of necrosis. While endarteritis is probably induced by the X-ray, the accompanying tissue necrosis seems out of proportion to the vessel-changes, suggesting the possibility of these being *pari passu* results of the same influence instead of cause and effect. (2) The pressure of immense numbers of cocci and bacilli in one case after a twenty-minutes' exposure would argue against any bactericidal effect. (3) The unsatisfactory clinical results as well as the slight microscopi-

cal changes of another case can be safely attributed to the presence of a large number of pearls. This emphasizes the necessity of curetting or cutting away diseased tissue before instituting treatment.

The Occurrence of Gout in the United States.

Fitcher (Journal of the American Medical Association) comes to the following conclusions: (1) Gout in the United States is undoubtedly more common than is supposed. (2) Out of 13,400 medical cases admitted to the wards in the Johns Hopkins Hospital during a period of 13 years there were 35 gout cases, or 0.24% of the total number of patients. For the same number of years at St. Bartholomew's Hospital there were 116 gout cases out of a total of 31,100 medical admissions, or 9.37% of the cases. Thus, among hospital patients gout is only about $\frac{1}{8}$ more frequent in London than in Baltimore. (3) All of the 36 were white males. The largest number of cases occurred in the fifth decade. Twenty-seven of the patients were native-born Americans. (4) The majority of cases appear to have earned rather than inherited their gout. Alcohol and lead seemed to be the most potent predisposing etiologic factors. (5) Thirty-three of the 36 cases had reached the chronic stage before they came under observation. In 17 of the cases tophi were present. (6) Among the more interesting complications may be mentioned 3 cases of gouty bursitis; 1 case of parotitis; 1 of pericarditis; 1 of retrocedent gout with symptoms simulating intestinal obstruction. (7) There was evidence of disease of the kidneys in the majority of cases. Albuminuria occurred in 27 and hyalin and granular casts in 23 instances. (8) Arteriosclerosis was present in 23 cases and a mitral systolic murmur in 5. (9) Many gout cases are mistaken for rheumatism. Four of the cases were repeatedly diagnosed as such on the early admissions, the appearance of tophi later revealing their true nature. (10) The series illustrates the great importance of examining the ears and the vicinity of the joints for the presence of tophi in all cases of multiple arthritis.

Serumtherapy Against the Bacillus of Dysentery.

F. P. Gay (Univ. of Pa. Med. Bull.). Guinea-pigs are susceptible to experimental infection with the bacillus and react to inoculation in a characteristic manner. Cultivated outside of the body, the bacillus quickly suffers a reduction in virulence for guinea-pigs, but the virulence can readily be increased by successive passages through the bodies of these animals. A uniform degree of virulence in the organism can be established by the passage of the bacillus through these animals, which is independent of its source and which adapts it for the production of vaccines of quite uniform activity. The vaccines consist of suspensions of dysentery bacilli killed by the addition of trikresol. Their activity undergoes an increase, for a time at least which is coincident with disintegrative changes taking place in the micro-organisms. This vaccine suffices to protect guinea-pigs from a succeeding, multiple, fatal dose of living dysentery bacilli, and to produce in the horse an active immune serum. The latter exhibits marked protective properties in preventing fatal infection with the bacillus or intoxication with its vaccine. While the several dysenteric bacilli used belong to one definite species, minor distinctions were present among them. The bacillus of dysentery resists bacteriolysis blood-serum to a greater extent than some other members of the colon-typhoid group. A useful serumtheraphy of bacillary dysentery and of certain forms of the summer diarrheas of infants, is rendered highly promising.

Habitual Constipation in Infancy.

Jordan (Birmingham Medical Review) mentions the following points: (*a*) Constipation is remarkably common and its effects on infantile mortality very marked in the aggregate. (*b*) The slighter cases of constipation are not brought to the physician except incidentally, and very careful questioning is necessary to elicit its existence. (*c*) Crying and loss of appetite are particularly suggestive of such a condition. (*d*) Emptying of the bowels by local stimulation is an initial and occasional necessity only; it is not curative. (*e*) The correction of dietetic and other hygienic errors is the foundation of treatment, the internal administration of mild drugs being commonly necessary as an auxiliary. (*f*) The drugs chosen should be such that the dose can gradually be lessened and their administration discontinued as soon as possible. (*g*) Water as a beverage is a valuable adjunct to treatment, but the water of some districts is not suitable for this purpose. (*h*) Success can only be attained by patient treatment, continued until the bowel isquite capable of satisfactory and spontaneous movement. Too early withdrawal of drugs and personal supervision means relapse. Patients should always be warned that treatment may have to go on for an extended period, and that the immediate relief of the constipation is only the beginning of treatment.

Douches and Irrigants.

Wingrave (The London Medical Lancet) believes that a douche should so far as possible conform to the following conditions: 1. The solution employed should, when practicable, be a solvent of the substance to be removed. 2. The reagent should be itself readily soluble in water and form a clear solution. 3. It should be non-irritating to mucous membranes and sensitive surfaces. 4. To ensure thoroughness it should possess the power of penetrating the surface tissues. 5. It should be miscible—i. e., chemically compatible with the most effective antiseptics. 6. It should be economical in cost and readily available. Of these essentials perhaps the most important one is that of having the power to dissolve the discharge, since there are so many solutions in general use which not only have no such solvent action but actually precipitate and harden the substances which they are intended to remove. The nature of the douche will depend, therefore, to a considerable extent upon the kind of discharge,—whether it be catarrhal, serous, purulent, cerumen and cholesteatomata, or fibrinous and hemorrhagic. The writer states that generally it must be slightly alkaline salts therefore best meet the indications while the mineral salts, such as those of mercury and zinc, alum, potassium permanganate, hydrogen peroxid and such substances as formalin, carbolic acid, boric acid, alcohol, etc., are precipitants and not suited therefore for the solution and removal of discharges. Some of the latter are pure astringents and should be used only for that purpose; others, as carbolic acid may be mixed with solvents for their antiseptic effects, but as a rule the solvent should be used first and followed by the antiseptic. Some of the aromatic antiseptics, as menthol and eucalyptol are irritants and suited only for atrophic conditions where stimulants are desired. He recommends the following formulæ, especially in diseases of the upper respiratory tract:

1. Sodium sulphate, from one and a half to three drams; water to one pint (20 fluid ounces), from 1 to 2 per cent.

2. Sodium sulphate, from one and a half to three drams; sodium bicarbonate, 40 grains; water to one pint.

3. Sodium sulphate, from one and a half to three drams; borax, 40 grains; water to one pint.

4. Sodium sulphate, from one and a half to three drams; sodium bicarbonate, 40 grains; glycerine of carbolic acid 45 drops; water to one pint.

Note.—Instead of glycerine of carbolic, absolute phenol nine grains or No. 1 carbolic acid may be used. Heat to 155 deg. F.

5. Borax, 40 grains; bicarbonate of soda, 40 grains; glycerine of carbolic acid, 45 drops; water to one pint (diluted Dobell's solution).

6. Sodium sulphate, one and a half drams; chinosol, 10 grains; water to one pint.

7. Sodium sulphate, one and a half drams; sanitas, three fluid drams; water to one pint.

8. Sodium sulphate, one and a half drams; perchlorid of mercury, two grains; water to one pint (1 in 5000).

9. Sodium sulphate, one and a half drams; red iodid of mercury, two grains; sodium iodid, two grains; water to one pint (1 in 5000).

10. Sodium sulphate, one and a half drams; potassium permanganate, two grains; water to one pint.

11. Sodium bicarbonate 40 grains; potassium permanganate two grains; water to one pint.

Note.—Borax (40 grains) may be used instead of sodium bicarbonate.

12. Solution of calcium chlorid (P. B.) six fluid drams; water to one pint.

Ureters.

A. von L. Brokaw (Ann. of Surg.) reaches the following conclusions; (1) The uterer is not a uniform calibered tube; (2) it consists in general of three isthmuses or sphincters located at points in the ureter where projecting adjacent structures compromise; kink its lumen. The ureteral lumen is compromised by (*a*) the distal renal pole projecting the ureter medianward, producing what the author terms the proximal isthmus, a sphincter or neck of the ureter; (*b*) the ureteral lumen in compromised at the point where the vasa iliaca project the ureter ventralward, producing what the author terms the middle isthmus or sphincter, the flexura iliaca ureteris. The middle ureteral isthmus is due to the increased ventral projection of the ureter by the vasa iliaca on assuming the erect attitude (man, erect bimana). Quadrupeds do not possess the middle isthmus, and consequently less lumbar ureteral spindle; (*c*) the lumen of the ureter is compromised at the point where its distal end penetrates obliquely the muscular wall of the urinary bladder; (3) compromised lumen by isthmuses or sphincters induce ureteral dilatations—reservoirs or spindles. There is a ureteral reservoir proximal to catch each ureteral isthmus, *e.g.*, (*a*) ureteral pelvis proximal to the proximal isthmus or neck; (*b*) lumbar spindle proximal to the middle ureteral isthmus; (*c*) pelvic spindle proximal to the distal ureteral isthmus in its vesical wall; (4) the ureteral spindles are

more pronounced in woman than in man on account of the proximal and distal arteria ureterica having an excessive or periodic hyperemia during reproductive life (pubertas, menstruasion, gestation, puerperium and climacterium). Consequently, in senescence, when its proximal and distal arteria ureterica becomes affected, with arterial sclerosis or calcification, lack of nourishment will induce pathologic dilatations of the lumbar and pelvic spindles; (5) calculi lodge at the ureteral isthmuses; (6) torsion of the ureter or kink may easily compromise the ureteral neck or proximal ureteral isthmus; (7) surgical interventions on the ureter should be performed at the ureteral reservoirs or spindles on account of ample lumen and wall; (8) pathologic conditions of the ureter lie mainly in defects of the ureteral wall (inflammatory products, paresis, tuberculosis, etc.), producing deficient peristalsis, or in the mechanical obstruction to the ureteral stream (calculus, kink, torsion, stricture); (9) so long as the ureteral peristalsis is not interfered with, and especially the ureteral stream is not obstructed, the ureters perform their function; (10) as soon as any mechanical obstruction to the ureteral stream arises (as kink, calculus, stricture) the non-drainage induces residual deposits, with resulting accumulations of bacteria, whence the vicious circle occurs in the urinarius exactly similar to vicious circles arising from obstructions in the pylorus or the biliary ducts; (11) the ureter is an independent organ, conducting the urine from the kidney to the bladder by rhythmical waves, regardless of altitude or force of gravity. It is an elongated duct, interpolated between kidney and bladder with similar functions to a bladder, a reservoir; (12) the ureter being located in a universally loose areolar bed, and being longer than the distance between its proximal and distal ends, is capable of an extensive range of motion in pathologic conditions or for surgical intervention; (13) the irregular caliber of the ureter, dilations (reservoirs, spindles), and constrictions (isthmuses, sphincters) is an hereditary heritage from the Wolffian body enhanced by environments.

The Etiology of Dysmenorrhea.

Herman and Andrews (British Journal of Obstetrics, Jan. 1903) says that few text-book authors consider it of sufficient while to treat of it in their books. One theoretical statement as to the causation of dysmenorrhea, given by so many writers is that the uterus is anteflexed. Anteflexion is present in precisely the same proportion of women who menstruate without pain as in those women who have straight uteri Sir J. Williams has reached the conclusion that the uterus is imperfectly developed, but that this does not retard the onset of menstruation. Primary, or dysmenorrhea, which starts with the onset of the puberty, is more likely to be cured by dilatation than that which is acquired. Especially is this true where the pain begins before the twenty-fifth year. Menstrual pain may be acquired at almost any time during the first half of menstrual life. The pain of menstruation may be of two kinds—general aching due to congestion of the pelvic organs which precedes menstruation, which is relieved by bleeding from the uterus, and the sharp uterine colic. The former is not relieved by dilation, the latter is often cured by it. The pain of pelvic congestion not only begins earlier, but lasts longer than that of uterine spasm. Spasmodic pain does not permit the patient to lie down; pelvic congestion is relieved by quiet recumbrance. Spasmodic pain is severe and usually accompanied by nausea and vomiting. In most cases of dysmenorrhea there is no sign of organic disease of the uterus. The most obvious explanation of the cure of the menstrual pain by dilatation of the cervical canal is that the pain is caused by the narrowness of the canal. The cervical canal of a young multipara has never been seen so narrow as to prevent the flow of the menstrual blood. Such stenosis only exists in diagrams. They have come to the conclusion that the narrowness of the cervical canal is most often sufficient to account for a condition underlying and perhaps, causing the spasmodic dysmenorrhea, acting not by causing mechanical obstruction, but by preventing physiological dilatation. The treatment of these patients consists in the dilatation of the cervical canal by bougies.

The Surgery of Acute Appendicitis.

Lockwood (London Lancet, December 13th, 1902). The main points to be taken into consideration before deciding to operate in acute appendicitis, are: 1. The mode of onset, including the intensity and duration of the pain, the rigor, and the vomiting. 2. The pulse, temperature, and respiration. 3. The degree of constipation or obstruction. 4. The condition of the abdomen as regards tenderness, rigidity, hardness, distention, œdema, redness, and mobility of the abdominal walls and of the intestines. 5. Micturition. 6. The inflammatory swelling. 7. The presence or absence of complications, such as colitis, nephritis, cystitis, pleurisy, pneumonia, subdiaphragmatic abscess, hepatic abscess, septicæmia, tubercle, actniomycosis, and ma-

lignant disease. Pregnancy is an occasional and serious complication. When in doubt operate.' He does not favor the use of morphine or of purgatives. A small dose of opium given by the rectum is all that is required, and that not often. Enemata are as effectual as purgatives, and much safer. In operating during acute appendicitis the presence of abscess is always to be reckoned with. As regards the question of searching for and removing the acutely inflamed, perforated, or gangrenous appendix when pus is present, the author holds that it is better to make a determined effort to remove the appendix than deliberately leave it behind. Lockwood recommends biniodide catgut for securing the bleeding vessels, the mesoappendix, the stump of the appendix, the omentum, and the layers of the abdominal wall. When pus is encountered the wound should be drained by means of rubber tubes and gauze. The three chief complications to be feared are shock, vomiting, and flatulent distention.

Diet in Asthma.

Jack (Buffalo Medical Journal) mentions the importance of a properly selected and individualized diet, as this disease depends on the functions of the blood and lungs, the blood carrying the alimentary substance throughout the system, and itself undergoing very important modifications in the lungs. He thinks that asthma is always on the borderland of severe blood conditions, such as leukemia, pernicious anemia, cerebral hemorrhage and hemorhagic conditions of the respiratory mucosa. On account of these viscious, progressive tendencies a diet must be given such as will replace the waste of the disease and prevent intestinal fermentation and putrefaction. It must be of such a character that it will not, after absorption, readily undergo perverted chemical metabolic changes in the blood. It must also be of such a character that it can be persisted in for many years. The misery of the disease, and malnutrition from impoverished blood causes melancholia, which in turn materially interferes with the digestive function. He reviews the various types of asthmatic lymphocytosis, asthmatic toxic leucocytosis and asthmatic anematosis. In the former case he thinks in children it is advisable to completely or partially substitute the bottle for the breast, especially in cases of breast-fed infants with prominent cyanotic attacks of increasing severity. In toxic leucocytosis he would carefully watch the stools, blood and urine, as well as the general condition of the patient and give a fairly elaborate diet without much sugar, but largely composed of vegetables, which he enumerates. Animal foods are most apt to cause deleterious changes in the intestines, and if the stools become alkaline they should be diminished, while if they become acid the carbohydrates should be limited. Meat should also be interdicted or diminished if there is a marked leucocytosis exceeding that of the normal digestion, but if there is iodophilia of the blood, then carbohydrates should be cut off. He concludes his paper as follows:

If on a differential count the blood shows a high percentage of small lymphocytes, milk should be diminished or withheld. An abnormal increase in the polymorphonuclear neutrophilic cells indicates an intestinal toxemia and putrefaction which suggests the withholding of meat-foods. A pronounced iodophilia indicates an amyloid or starchy degeneration of blood and suggests the withholding of foods rich in starch. A thin, watery blood with a deficient plasma and a red corpuscle poor in hemoglobin and deficient in biomagnetism, as shown by the lack of rouleaux formation and the scattering of the red blood corpuscles about the field, indicates the giving of fresh bloody meat, raw eggs and green vegetables rich in chlorophyl and protoplasm.

Appendicitis.

Barling (British Medical Journal, January 3, 1903) says that he sees an actual increase in the incidence of appendicitis. It is not easy to give the reason why. The author calls attention to a certain family predisposition to the disorder and gives an account of his own cases. The writer is not an advocate of indiscriminate operation, but believes in judicial selection of cases for operating. If the patient can be carried safely through his attack it should be done and operation done in the interval. The symptoms are reviewed. Barling does not find a constant pain at McBurney's point; this could not be expected, considering the variations of the position of the appendix. Of all the signs that might guide us as to the seat of the condition the pulse is the most valuable and reliable. Its rapidity should be indexed rather than its quality. It is not the hard, wiry pulse of peritonitis, notwithstanding peritonitis is the essential feature of the disease. It is, on the contrary, soft and yielding. It is to its rate, however, that he specially calls attention. When the onset pain is distracting the patient the pulse-beat may be 120 or 130 in the minute, but with a less intense seizure 20 or 30 beats slower is more to be expected. With diminution of the pain the pulse rate falls. If it comes to nearly normal probably other symptoms will also improve. If it should remain high, how-

ever, for more than twelve hours, the case should be looked on as a grave one unless there is some special explanation. A steady quickening of the pulse is also significant. Unfortunately the quick pulse is not always present. After the early days of the attack have passed the pulse rate will probably be of little assistance, but will be nearly normal and other symptoms, palpation, the thermometer, etc., may have to be utilized and depended on. The temperature is not a certain guide, but not to be dispised. The value of the leucocyte count is considerable, but it is not infallible. He says as regards operation we should always be guided by the severity of the symptoms present and ignore the absence of symptoms usually present or of very slight intensity if they are present. If the patient does not vomit and his temperature is approximately normal, while the pulse is 120 and the abdomen nearly rigid, lay stress on these last two points and pay little heed to the others. Or, again, if the pulse is but moderately quick and the temperature is not in correspondence and yet the patient continues to vomit despite the prohibition of mouth feeding, too great emphasis can hardly be placed on the last symptoms. If the temperature is falling and the pulse quickening, whatever the state of the other symptoms the pulse is the index to the conditions in the abdomen. The author lays great stress on the avoidance of the repeated and persistent use of opium, which is a dangerous practice, as it misleads the patient, though the drug may be necessary to quiet pain at the onset.

Fracture of the Neck of the Femur In Children.

Whitman (Annals of Surgery) points out the frequency of this fracture in childhood. The rapid recovery which follows this injury in childhood indicates that the neck of the femur is forcibly depressed, rather than completely separated, at the point of fracture. Consequently, the result is better than in adult life, although further depression (coxa vera) is favored: for this reason the impaction should be broken up, with the object of reducing the deformity; this may be accomplished by forcible abduction of the thigh, using the acetabulum as a fulcrum and depending upon the lower border of the capsular ligament to fix the head of the bone. The limb is fixed in this attitude of extreme abduction by a plaster cast. This treatment may also be applied to adults, with a prospect of better results than are usually attained by other methods of treatment. After ambulation has been resumed the ordinary hip splint may be applied to remove the strain brought to bear on the weakened femoral neck. In childhood the neck of the femur gives way at some distance from the epiphyseal junction. In adolescence, however, the newly formed bone about the epiphyseal cartilage is the weakest point. Cases of coxa vara in which the disability is suddenly increased by an injury may be mistaken for true primary epiphyseal separation. Epiphyseal separation is uncommon, compared with fracture; it should be treated in the manner suggested for ordinary fracture, *i. e.*, fixation is abduction. Coxa vara is treated by forcible stretching of the contracted tissues and restoration of the normal angle between the shaft and the neck by removing a sufficient wedge of bone from the base of the trochanter. A portion of the trochanter minor, should be preserved. The thigh is abducted until the trochanter and neck are fixed by contact with the upper border of the acetabulum, when further abduction closes the wedge-shaped opening. The limb is retained in this position by a plaster spica. In adults simple linear osteotomy is the operation of choice, because there is usually a retroversion of the neck combined with the depression. The progress of a coxa vara may be checked, temporarily, at least, by a mechanical support; this is a palliative measure, however, and operation is favored whenever practicable. Forcible abduction of the thighs may correct the deformity to a certain extent and may be employed as a tentative measure when more radical treatment is contraindicated. Whitman reports 21 cases of traumatic (fracture), and 52 cases of simple coxa vara.

Miscellaneous.

THE OBSTETRICAL SOCIETY OF PHILADELPHIA.

The Etiology of Eclampsia.

Charles S. Barnes, M. D.: The causative factor or factors are not known. The clinical symptoms and pathylic findings are so varied as to lead investigators astray. Several theories of etiology were presented, as the theory of mechanical irritation by the enlarged womb; the so-called pressure theory whereby circulation of the kidneys is thought to be interfered with. Again, the malady has been considered as one of purely reflex origin, through innervation of the splanchnic nerves by pressure or by rythmic contractions of the womb. Efforts to identify eclamptic convulsions with those of purely uremic origin have failed. The rational conclusion has been reached that the immediate cause of eclampsia is a systemic affection, an auto-intoxication; that

FIRST OF ALL

insist on rest and freedom
from care; then always prescribe

GRAY'S Glycerine TONIC Comp.

This, authorities state, will,
if persistently followed, overcome
any case of general debility, nervous
exhaustion or neurasthenia.

THE PURDUE FREDERICK CO.,
No. 15 Murray Street, New York.

PRUNIER'S
HYPERPHOSPHINE
REGISTERED

(C_3 H_7 $CaPhO_6$, $2H_2$ O)

Pure Phosphoglycerate of Lime

Prepared according to the original process of MM. Portes and Prunier.

INDICATIONS.—In all cases of weakness by Anæmia, Neurasthenia, Headache, Neuralgia, Nervous Cough, General Debility.

HYPERPHOSPHINE *is non-toxic.*

HYPERPHOSPHINE *is supplied in three forms:*
Granulated, Syrup, *and* ***Wafer-Cachets***

When prescribing, specify which of the above is wanted.

E. FOUGERA & CO., Sole Agents, New York

the system of the pregnant woman is a laboratory in which are produced substances which may result in a self-destructive explosion. These toxins are probably animal alkaloids. The condition results from the gradual accumulation in the system of nitrogenous waste, due to an excess of nourishment, faulty metabolism and deficient excretory processes, one or all. Davis and Herman have pointed out that the quantity of urea excreted is the best index of metabolism. The toxemia, however, is not ascribed to urea, but to the excess of urea-forming substances retained in the system. There is at present no good ground for belief in a bacterial source of the disease, though bacterial infection of various sorts predisposes to toxemia. The commonly accepted theory is that toxemia is the result of a vice of constructive and destructive metabolism.

The question is raised as to the part of the organism responsible. The theory attributing the trouble to a diseased or dead fetus is untenable. Waste from a growing fetus may possibly determine an attack. Recent observers regard the placenta as having a remarkable glandular activity, perhaps liberating toxins into the maternal blood. The kidneys, while sometimes a contributing factor, often, indeed, suffer the consequences of toxemia. There is strong ground for belief that the liver is the most important of the excretory organs, and that the urea index is significant of the functional activity or inactivity of the liver rather than of the kidneys. In toxemia, the skin is dry and the exhalations from the lungs are especially noxious. Thus the symptoms, though flashed outward by way of the nervous system, point directly to the derangement of the excretory organs. The conclusion has been reached by some that the function of the thyroid, normally enlarged in pregnancy, is to regulate and control metalbolism.

Numerous contributory or predisposing causes were enumerated; among them heredity, as to disease, temperament or habits; excess of nitrogenous food; inactivity; beverages, alcoholic, tea or coffee; bad hygiene; systemic diseases; diseases of the excretory organs; climatic influence; multiple pregnancy and primiparity; mental depression or undue strain; ptomaine poisoning; exposure; mental or physical shock; pain, especially that of labor.

The immediate cause of a convulsive seizure has been ascribed to an acute anemia of the brain or to edema of that organ. But the most plausible and rational conclusion is that, in toxemia, the poisons circulate throughout the system, including brain cord, until, the toxins accumulating, there comes a time when the equilbrium of the nervous system can no longer be sustained, and there is an outward discharge of nervous energy in convulsive phenomena. Emphasis was laid upon the predisposing and contributing causes, such as are so imprinted upon the excretory and nervous systems of every toxemic patient that any intelligent and diligent practitioner of medicine may read them, and having read, may employ successful prophylactic treatment of eclampsia.

The Treatment of Eclampsia.

By Dr. Wilmer Krusen.

Dr. Krusen gives statistics showing the great necessity for further knowledge of this alarming complication of labor. He thinks that to insist dogmatically upon a definite and undeviating method of treatment for this or any pathologic condition, is to confess ignorance of therapeutic agencies, since what is exactly adapted to one case may be futile or damaging in another. He divides the treatment of eclampsia into: 1. prophylaxis; 2 treatment of convulsions; 3, treatment during intervals; and 4, after treatment.

Prophylaxis is directed to the prevention of convulsions and the strengthening of vital processes. The amount of urea excreted is considered the best guide and when it falls below 1.5% there should be stimulation of all excretory processes. The liver and the intestinal tract should be stimulated by the administration of frequent and small doses of calomel, 1-10 grain 3 times daily for one or two weeks. Cafeine in 3 grain doses, 3 times daily, may be given for diminution of urine. If there is high arterial tension, nitroglycerine in full doses is indicated. The writer calls attention to the connection between the inadequate action of the thyroid gland and the arrest of renal secretion, quoting Nicholson who has given thyroid extract in eclampsia with favorable results, and advises that it be given in 5 grain doses night and morning, and proteid foods avoided. Saline solution dilutes the poison in the blood and produces diuresis and diaphoresis. Iodide of potassium is sometimes added to the saline solution, the iodine acting as a stimulant to the thyroid gland. Dr. Krusen thinks that upon a thorough investigation of the relationship between the thyroid gland and pregnancy depends much of the future success in the prophylaxis of eclampsia.

In the treatment of the convulsions he considers chloroform as the anesthetic par excellence for their control, and inhalation of it should be continued until the paroxysm abates. Oxygen may be given in conjunc-

Thiocol Roche

is admitted by many careful observers to be the most active and readily borne derivative of guaiacol or beechwood creosote. It is meeting with high favor in the treatment of

COUGHS
BRONCHITIS
PNEUMONIA
TUBERCULOSIS

BEECH
(Fagus Sylvatica L.)
Source of Creosote, Guaiacol and Thiocol Roche

"Thiocol is a derivative of guaiacol and sirolin is its syrup preparation. It possesses the properties of guaiacol without its disagreeable by-effects. * * Clinical experience is demonstrating its great value in the treatment of tuberculosis. * * Thiocol increases the number of red corpuscles and the proportion of hemoglobin. The leucocytes increase at the expense of the polynuclears. The thiocol further enhances the alkalinity of the blood, the serum albumin progressively increases in amount and it has an unmistakably favorable influence on the organic chemistry in general."—ABSTRACT IN *Jour. of Amer. Med. Assoc.*, SEPT. 20, 1902, *p.* 731.

Thiocol Roche is a water-soluble odorless form of guaiacol. It may be procured in three forms:

THIOCOL ROCHE POWDER: 5 to 20 grains 3 times a day.
THIOCOL ROCHE TABLETS (5 grain): 1 to 4 tablets 3 times a day.
SIROLIN (Syr. Thiocol Roche, 6 grn. to teaspoonful): 1 to 3 teaspoonfuls 3 times a day.

Beware of Spurious Products and Imitations!

CLINICAL DATA CONCERNING THIOCOL ROCHE ON REQUEST

MERCK & CO. UNIVERSITY PLACE NEW YORK

tion with it. Icebags applied to the back of the head and neck will also aid in warding off and controlling the attacks.

In the treatment during the intervals one of the most important measures is venesection. It is indicated when the pulse shows high arterial tension, is full, rapid and bounding, and the face of the patient is suffused or almost cyanotic. In such cases it frequently rescues the patient from impending pulmonary edema and apoplexy; and it also abstracts a large amount of noxious principles from the system and will do more for the relief of the patient than any other one procedure. By using copious injections of normal salt solution the depressing effect of bleeding can be counteracted and the unknown toxins diluted. Since the salt solution stimulates the heart, promotes diuresis and diaphoresis and dilutes the toxines it must be classed as a rational method of treatment. Bicarbonate of potassium is sometimes added to the solution. Morphia can be used hypodermatically. It is an agent of great power and rapid action, things often essential in the prevention of repeated convulsions. The writer condemns hot air and hot water baths and advises as purgatives croton oil, calomel or some saline. As carbon dioxid poisoning soon occurs in cases of repeated convulsions, oxygen by inhalation may be used. In regard to obstetric treatment, he believes that the teaching of Duhressen is sound, that if eclampsia comes on during the last month of pregnancy when the child is viable, its speedy extraction is desirable. But the high moriality of Cesarean section leads him to condemn that operation unless some condition, such as pelvic deformity, prevents vaginal delivery. If the patient is in the second stage of labor all authorities agree that the uterus should be emptied as speedily as possible. But in cases in which labor has not begun or is in the first stage opinions differ. But as expectant or palliative treatment means certain loss of the child and the loss of 30% of the mothers he believes that while the obstetrician should not cease to combat the convulsions the sooner he produces or hastens labor the better for both lives concerned. Mechanical dilatation of the cervix either manually or with dilating bags, or deep cervical incisions, properly performed under rigid antisepsis is the best method of procedure. Delivery should be accomplished as rapidly as possible since the prompt emptying of the uterus contributes greatly to the recovery of the patient. The after treatment should be carried out along the ordinary lines followed in the care of the puerperal patient, but with more absolute rest and quietude and with more vigilant attention to all the excretory organs.

Dr. R. C. Norris: The papers that have been presented have outlined our knowledge of the etiology, the pathology and the treatment of eclampsia about as accurately as could be done. There are a few points which I think this discussion should emphasize.

In regard to etiology, the profession recognizing the fact that eclampsia is believed to be a toxemia, should pay attention to the functional activity of the liver of the pregnant woman, quite as closely as to that of her kidneys. It is common practice to have a bottle of urine of the pregnant woman sent to the physician and to have it tested for albumin and for its specific gravity, and so long as albumin is not found and the specific gravity is near the normal no further attention is paid to the case. I believe that such an examination of the urine is absolutely worthless except where grave kidney lesions exist. Others will go farther and have a critical analysis of the urine made, involving a knowledge of the amount excreted in 24 hours and the percentage of the urea, and so long as they find these two factors approaching the normal they will give no further attention to the case. This I also believe is a false security. While we know that 2 per cent. of urea is the average amount passed, we must know that this 2 per cent. represents a proper quantity of urine passed. Moreover, it is our duty to know not only the amount of excrementitious products the patient is able to excrete, but we also must have knowledge of what may remain to create a toxemia. That is only learned by seeing the patient frequensly and noting the general symptoms of toxemia such as headache, neuralgia, coated tongue, hebetude, salivation, insomnia, nervous irritability, eye symptoms, etc. The approach of a toxemic storm usually can be seen by the alert physician. In a case under my care in which the most critical urinalyses were made, with normal findings, the constitutional condition presented symptoms of toxemia requiring the most vigorous treatment. While urinalysis is most important, it should be remembered that it is only an index of the kidney elimination and fails to indicate the metabolic and toxin-destroying power of the liver.

When we come to the question of treating these cases, I agree with the author that prophylactic treatment is the most important. Drugs that aim directly to promote the activity of the liver are more valuable to the pregnant woman than diuretics. Calomel with salines should be used. Diet that lessens the tax on the liver

LISTERINE

The standard antiseptic for both internal and external use.

Non-Toxic, Non-Irritant, Non-Escharotic—Absolutely Safe, Agreeable and Convenient.

LISTERINE is taken as the standard of antiseptic preparations.

The imitators all say, "It is something like LISTERINE."

BECAUSE of its intrinsic antiseptic value and unvariable uniformity, LISTERINE may be relied upon to make and maintain surgically clean—aseptic—all living tissues.

IT IS AN EXCELLENT and very effective means of conveying to the innermost recesses and folds of the mucous membranes, that mild and efficient mineral antiseptic, boracic acid, which it holds in perfect solution; and whilst there is no possibility of poisonous effect through the absorption of LISTERINE, its power to neutralize the products of putrefaction (thus preventing septic absorption) has been most satisfactorily determined.

A special pamphlet on catarrhal disorders may be had on application.

For diseases of the uric acid diathesis:

LAMBERT'S LITHIATED HYDRANGEA

A remedy of acknowledged value in the treatment of all diseases of the urinary system and of especial utility in the train of evil effects arising from a uric acid diathesis. A pamphlet of "Clippings" of editorials on this subject may be had by addressing:

LAMBERT PHARMACAL COMPANY, - - ST. LOUIS.

Be assured of getting Listerine by purchasing an original package.

frequently by a pregnant patient apparently perfectly well, for she needs to have her liver prodded whether constitutional symptoms indicates that things are going wrong or not. A point of practical value is lavage of the intestines. While we do not know to what extent the intestines are involved in the etiology, I do know that toxemic patients in my practice receiving intestinal lavage two or three a week show improvement.

When we come to the treatment of convulsions there is a wide variation in the discussion of details. Dr. Krusen omitted mention of chloral and of veratrum viride and laid special stress upon bleeding. He is no doubt correct that bleeding is indicated in some of the cases, but in some cases the women are anemic; there is pallor and the blood count will show diminution in the proportion of hæmoglobin and in red blood corpuscles. Depriving such patients of 20 or 30 ounces of blood does distinct harm. Such cases are better treated by the use of varatrum viride. The anemia of pregnancy is closely associated with toxemia and has a practical bearing upon the use of venesection. When the pulse is 160 to 180 with but little volume and when the patient shows profound anemia an abstraction of 20 to 30 ounces of blood may be distinctly disadvantageous and is not going to eliminate much poison. It will lessen blood pressure, and the real value of bleeding for eclampsia is the action upon the blood pressure. The modern practice of not bleeding every case is better than bleeding every case. We must use the best of judgment when deciding in favor of venesection, bearing in mind the condition of the pulse and the blood count. There is a wide diversity of opinion as to the value of veratrum viride. I cannot understand why some men do not appreciate its value unless it be that they have never employed it. I have repeatedly used it and so far as the cessation of convulsions is concerned have observed more benefit than from any other drug I have ever employed. It too, must be given cautiously. The dosage differs according to whether the tincture or fluid extract is employed. I have seen a patient nearly killed by the use of 20 drops of the fluid extract administered hypodermatically. The initial dose should be five to eight drops of the fluid extract to be repeated as soon as the effect diminishes. Sufficient should be used to keep the pulse in the neighborhood of 70 or 80. I am sorry Dr. Krusen did not discuss that in his paper. The value of full doses of chloral is well known.

I would like to give a word of warning as to the use of salt solution. I have found in some cases that an excessive amount of salt solution has aggravated the condition of the kidneys, has produced edema of the lungs and helped to do the very thing which we aim to avoid. I should place as a limit one quart of salt solution and no more until free diaphoresis, diuresis or catharsis has occurred. When there is some edema of the lungs it should not be employed at all. I have seen edema of the lungs aggravated and the patient's serum run out of her mouth as the result of too free use of salt solution. Large amounts of salt solution are of greatest value when *profuse* catharsis from saline purges has occurred.

I do not feel that morphia is always contraindicated but would reserve it for aggravated cases in which the convulsions recurred with great frequency and were not otherwise to be controlled. One grain to a grain and a half until the convulsions have ceased is an average amount to be employed.

Chloroform to be of any value must be administered by some one who can recognize the onset of a convulsion. There are prodromal symptoms of the eclamptic seizure and during these is the time for the administration of the chloroform. Upon an attempt to give it during a seizure it will be found that very little enters the lungs and for the same reason oxygen cannot be taken except between the convulsion seizures.

The necessity for delivering eclamptic patients quickly is always discussed. I have believed, on theoretical grounds, and practically my experience has borne it out, that the speediest method of delivery is not the safest one. If that were true Cæsarean section would be the ideal method. Next to that is rapid dilatation or incisions of the cervix. I have incised the cervix and done craniotomy upon a dead baby, delivering the baby in eight minutes. This winter at Blockley I had an eclamptic patient with a conjugate of 8 centimeters on whom I did a Cæsarean section. Both patients died in coma despite most rapid deliveries. The method of the rubber bag to dilate the cervix in these cases of primagravadæ with rigid cervices is often too slow. The first duty is to treat the case medically, eliminate poisons, control the seizures, and then to begin by slower, less aggressive means to secure dilatation of the cervix. Here again we must consider the individual case. Some women are so weak that the shock of anesthesia and dilatation of the cervix will carry them beyond the point of recovery. Experience and good judgment are required for selecting a method of dila-

THE MECKLENBURG

NEW HOTEL AND SANATORIUM. MODERN COMFORTS.

Chase City, Virginia.

A new, modern hotel and Sanatorium located on the outskirts of Chase City at an elevation of 535 feet, with a thorough system of drainage and perfect sanitary conditions, surrounded by 145 acres, a large proportion of which is pine forest; far from any swamps or sluggish streams, a dry, bracing atmosphere and absence of humidity, absolute freedom from malaria and mosquitoes. On the Southern Railroad 12 hours from New York, 3 hours from Richmond and 4 hours from Greensboro, N. C. 125 large, airy bedrooms, all outside rooms, broad verandas, sun-parlors, and the building heated throughout by steam, electric lights, private baths, and every modern convenience for the care and home-like comfort of its guests.

A modern hydriatric department with skilled and experienced attendants (masseurs, etc.) for the administration in the latest and most approved form of all kinds of hydrotherapeutic methods. A complete electric outfit for the administration of galvano-faradic, static and X-ray work. The celebrated Chase City Lithia and Chloride Calcium Waters, with a well established reputation for the cure of rheumatism, gout, chronic kidney and bladder troubles, stone in the bladder or kidney and in all uric acid conditions, indigestion, catarrh of the stomach and bladder, blood troubles, scrofula, glandula enlargements, chronic eczemas, anemias, chronic malarial poisoning, nervous prostration, melancholia, hysteria, etc.

Samples and Literature supplied by

AGURIN
The Non-Irritating Diuretic.

EPICARIN
The Non-Toxic Dermal Parasiticide.

SALOQUININE
The Tasteless and Improved Quinine.

HEDONAL
The Promoter of Natural Sleep.

FERRO-SOMATOSE
The Ferruginous Nutrient and Tonic.

PROTARGOL
Antigonorrheal, Antiseptic

ASPIRIN
The Best Salicylate.

PHARMACEUTICAL PRODUCTS
BAYER
BAYER
BAYER
86 Stone St. New York.
FARBENFABRIKEN ELBERFELD CO.

tation where the cervix is rigid. When the convulsions have been controlled and when the patient has passed out of her coma, the rubber bag is sufficient. When the patient remains comatose, with repeatedly recurring convulsions she should be kept under an anesthetic and a metal dilator used, such as Bossi's four branched instrument, and the child extracted with forceps. That rapid method should be resorted to for desperate cases only. In other cases which improve under medical treatment the slower plan of dilatation is safer.

To recapitulate, the practical points that I would emphasize are that while urinalysis is important, it must go hand in hand with personal interviews with the patient to note the first signs of approaching toxemia; that the use of prophylactic measures includes as most important of all, diet and attention to the woman's liver, and that among the means of elimination of toxins during pregnancy, the use of the intestinal canal is most valuable. For the control of convulsions I would speak in praiseworthy terms of veratum viride, and for rapid elimination of toxins I would also speak of the value of free saline purgation. In an experience of ten years that has given me eight to ten eclamptic patients in consultation each winter and one or two additional in my own hospital, with but one exception, I have yet to see a patient die who responded to the free use of saline purges, in conjunction of course with other treatment. Speedy delivery is not always to be desired. Only in the gravest cases is this advisable and then instrumental dilatation of the cervix offers the safest and best means of delivery.

Dr. Stricker Coles: I would refer especially to the early symptoms and to the prevention of eclampsia. I may have to change my ideas about this condition, but I believe from the cases I have seen that this disease is a preventable one. In other words, I believe that 90 per cent. of eclampsia can be prevented.

In my experience I have seen clinically three forms: One begins with Bright's disease. Some women may go into Bright's disease without any apparent toxemia. Of these cases I have had some eight or ten without any death at all. I look upon these as cases without much danger, although some have albumin and almost solid urine. With reference to the mother there is very little danger, but this is not the fact with reference to the child. Of these babies I have lost some before, and some after birth. It is not easy to raise these children. The next form is that from toxemia. The patient has the symptoms of toxemia, headache, restlessness, malaise, indigestion and all the symptoms of toxemia, and the urine of these cases some two or three weeks before the patient will go into convulsions will show some signs. This sign will be in the amount of urea. If we find a patient eliminating 1.5 per cent. of urea with a normal amount of urine we do not find symptoms of toxemia. The danger point in my experience is when it reaches .5 of 1 per cent. I have never yet examined such cases in which the patient did not have headache and all the symptoms of toxemia. I have never seen a patient with a form of eclampsia that could not have been prevented.

There is one other form about which I am a little doubtful in my mind. I have seen two or three cases of this form which I have called fulminating eclampsia. This has been brought on by eating a large amount of indigestible food. One patient had eaten a lot of half boiled cabbage, and grapes. There were no symptons of headache or sign of toxemia. Another woman whom I saw in consultation about a month ago had eaten a large amount of pie. She went to bed with only slight indigestion and woke up with convulsions. These cases have had no previous histories, but after having eaten some indigestible food have had more or less indigestion and have gone into eclamptic convulsions without any apparent toxemic symptoms. I believe that if we watch our patients there will be very few cases of eclampsia, and that the cases can be much better treated before the eclampsia occurs than after. I would lay special stress upon the amount of urea in the urine. My experience is that when this gets below one per cent. the woman is in danger, and should have small doses of calomel gr. 1-10 to gr. ¼ three times a day with a milk diet.

Regarding the general treatment, I have nothing to add except that in my experience veratrum viride has done well, especially in ten minim doses repeated. I also believe in the use of salt solution. In the matter of delivery, my experience teaches me that the more quickly the child is delivered without undue violence, the better. Time should be taken to dilate the cervix. This can be best done with fingers in a large number of cases. I have not used Bozzi's dilator but from examing it would think that the cervix would be torn if dilated too rapidly. I am especially fond of using the McLean bag. This can be put in the cervix and with a good piston syringe I can dilate the cervix in an hour. If the cervix is very rigid it may require three hours for dilatation. It is not only for the sake of the mother, but for the child that delivery should be brought about; for

RELIEVES CONGESTIONS. ENCOURAGES PERISTALSIS.
REMOVES SPASMODIC CONDITIONS.
REGULATES THE VASCULAR SUPPLY.

PONCA
COMPOUND

(PC) (PC) (PC) UTERINE-ALTERATIVE (PC) (PC) (PC)

EXERCISES
A tonic influence on the pelvic organs.
An alterative action on the uterine tissues.

THE ORIGINAL PACKAGE OF PONCA COMPOUND CONTAINS 100 5GR. TABLETS MAILED TO PHYSICIANS ON RECEIPT OF $1.00.

SAMPLES AND LITERATURE ON APPLICATION. MELLIER DRUG COMPANY, ST. LOUIS.

SYRUPUS ROBORANS.
SYRUP HYPOPHOSPHITES COMP. WITH QUININE. STRYCHNINE AND MANGANESE.

1-128 grain Strychnine to teaspoonful.

The pharmaceutical skill displayed in making this favorite compound more stable and agreeable, deserves the approbation of the profession.

Syrupus Roborans as a Tonic during Convalescence has no Equal.

As a nerve stimulant and restorative in waisting and debilitating diseases, as a constructive agent in Insomnia, Pneumonia, Bronchial Asthma, Marasmus, Strumous Diseases and General Debility, this compound has no superior. Owing to the solubility of the salts, additions can be made of Fowler's solution, Syrup Iod. Iron, Iod Potass, etc., giving the advantages of these remedies without interfering with the stability of the preparation. SYRUPUS ROBORANS is in perfect solution, and will keep in any climate.

DR. T. H. STUCKY writes: "In a case of Tertiary Syphilis, very anemic, the Iodides were revolting to the stomach, being vomited when taken. Syrupus Roborans given three weeks with improvement, when the Iodides Potassium was retained with good results."

DR. W. O. ROBERTS says: "In cases convalescing from 'La Grippe Syrupus Roboran nas no equa..

PETER'S PEPTIC ESSENCE COMP.
A POWERFUL DIGESTIVE FLUID IN PALATABLE FORM.

Please note that Essence and Elixir Pepsin contain only Pepsin, while in Peter's Peptic Essence we have all the digestive ferments. These are preserved in solutions with C. P. Glycerine in a manner retaining their full therapeutic value, which is exerted in and beyond the stomach.

It is a stomachic Tonic, and relieves Indigestion. Flatulency, and has the remarkable property of arresting vomiting during pregnancy. It is a remedy of great value in Gastralgia, Cholera Infantum and Intestinal derangements, especially those of an inflammatory character. For nursing mothers and teething children it has no superior. Besides mere digestive properties, Pepsin and Pancreatine have powerful soothing and sedative effects, and are therefore indicated in all gastric and intestinal derangements, and especially in inflammatory conditions. It is perfectly miscible with any appropriate medium. In certain cases the addition of Tr. Nux Vomica gives much satisfaction. Please write for Peter's Peptic Essence and you will not be disappointed. These preparations are held strictly in the hands of the medical profession, never having been advertised as popular remedies, nor put up with wrappers and circulars expatiating on the use of the Hypophosphites or Digestive, thus educating the public in the use of these valuable compounds.

Samples Sent upon Application. Express Charges at your Expense.

For Sale by **ARTHUR PETER & CO.**

All Wholesale Druggists. LOUISVILLE, KENTUCKY.

if the child is kept in a woman having convulsions it will almost invariably be lost, and if delivered will die of toxemic symptoms very much resembling those of the mother. My experience in raising children born of eclamptic mothers has not yet been very successful, only three or four out a great many cases having lived.

Dr. John C. DaCosta: As Dr. Barnes said there is such a diversity of opinion as to the etiology of eclampsia, that one is at a loss to form the true idea of the causes. There may be a variety of causes. The key note of treatment was struck in what Dr. Krusen said about the preventability of eclampsia. I go farther than Dr. Coles, and think the cases can be reduced more than ninety per cent. if the patient is treated in time. I believe a great deal of the mortality, and many of the cases of eclampsia are due to neglect of the patient. The patient calls upon her doctor, engages him and sends for him when about to be confined. To use a homely phrase, you would not take a horse out of the stable, put him upon the race track and expect him to win. You train your horse beforehand, and then expect him to win. Train your woman for six weeks or two months before her labor and the number of cases will be reduced more than 90 per cent.

What Dr. Norris said I think was a very important point; that is, we should not only know the percentage of urea eliminated, but the amount in grains eliminated per diem. You may have two per cent. of urea and a woman passing only eight to twelve ounces of urine a day and loading herself up with toxic products and she may have convulsions. Train her two months beforehand so that the excretory organs are in good working order. Restrict the diet, examine the urine weekly for albumin and urea and the amount of urea. If a convulsion occurs, the best treatment is to empty the patient's stomach, bowels, bladder, and as Dr. Coles has suggested, get the baby out as quickly as possible without any undue violence. After all this, if convulsions continue, (although I know veratrum viride is a very useful agent, don't have time to use it). I am a firm believer in the value of the lancet. If you have not your lance with you, you have your pocket knife. I have seen a number of cases of puerperal convulsions in consultation, but have never had such a case in my private practice, probably because I do not care to attend patients unless I have had them under my care for a couple of months. I do not regret a single case in which I have been allowed to bleed, but I do regret every case in which I was not allowed to bleed. Over twenty years ago I was struck with the remark of a prominent practitioner upon the value of venesection. While a resident in Blockley, he had made post mortem examinations of twenty patients dying of puerperal convulsions and in nineteen of these found a big clot of blood in the brain.

When you have the dry hot skin and the quick irritable pulse and put your lancet or knife into the arm you often do not get any blood. You have to manipulate that hand and arm and then you get a great tarry string before you can get any blood to flow. You should bleed that woman until you get the pulse down in speed and up in power. She will probably then get well.

Dr. L. J. Hammond: I have not for some years been much interested in obstetrics, though I have had a very large experience, much larger than I desired in the treatment of eclampsia. Two conditions that I have especially observed are that first, eclampsia occurs in pregnant women who have previous to the pregnancy been subjects of nephritis. Second, there is a condition of eclampsia which develops in pregnant women, who have not been previous to pregnancy subjects of kidney disease, but who during the course of pregnancy, and I believe dependent upon it, develop acute nephritis. In those cases in which the pregnancy followed the kidney disease, so to speak, we invariably have the most serious form of eclampsia to deal with. Those in which we have, as several gentlemen have spoken of, a condition that seems to be an involvement of the liver, but which I always felt was in reality the result of the nephritis rather than a change of the hepatic structure. In other words, the hepatic condition was the result of, and not the causative factor in the production of these various abnormal systemic conditions. In support of this I may say that no case of eclampsia has ever come under my observation where the clinical picture of nephritis did not overshadow all other organic lesions. For this reason and in view of the fact that the various hypotheses have definite conclusions, as to the etiology other than that it is due to nephritis, and in view of the fact that decapsulation of the kidney has been effective where prophylaxis has not been satisfactory in conditions due to parenchymatous change, in other than pregnant women, I would ask would it not be good practice to do the operation of decapsulation as a radical prophylactic measure where the more conservative prophylaxis seemed not to lessen the dangers of eclampsia at the sixth or seventh month, or as early as could be done if one felt confident that the kidney change existed prior to the pregnancy. It seems to me that such favorable results have been reported from the opera-

ANTIPHLOGISTINE

Includes the important field of curative medicine. Its therapeutic action is capable of clinical demonstration and does not suggest speculative theory.

It is the most practical non-irritating antiseptic absorbent ever employed by the medical profession for the treatment of every type of inflammation.

Pneumonia	Adenitis	Synovitis	Felons
Pleurisy	Erysipelas	Cellulitis	Sprains
Bronchitis	Periostitss	Contusions	Ulcers

Apply

ANTIPHLOGISTINE

Warm and Thick

when an effective medium is desired for the transmission of energy to the inflamed area. Stimulates oxidation of localized district by acceleration of capillary flow.

The congestion of the deep internal organs is reduced by stimulation of reflex centers and the associated capillary drainage. Free superficial circulation empties the turgid lymph spaces and effects rapid return to normal conditions of all hyperæmic parts.

DOCTOR, KINDLY NOTE ON YOUR PRESCRIPTION
[ORIGINAL PACKAGE.]

The Denver Chemical Mfg. Co.

LONDON NEW YORK

tion of decapsulation that I see no reason why it should not be considered in connection with these very depressing conditions associated with pregnancy.

Dr. Hopkinson: The subject has been so thoroughly gone over that there is not much to add in reference to the etiology of the disease. We all agree with the writer that it is very obscure, and it seems more obscure to me to-night than ever before. The thyroid treatment opens up a new field, which we ought to try on account of its harmlessness. The Stronganoff treatment has been mentioned. I have employed it in five cases without mortality. I regard the use of oxygen superior to that of chloroform. Chloral, I think, is a valuable drug in this disease, and when given in morphia we can avoid the eliminating processes sweating, purging, bleeding or the salt solution, etc.

I look upon eclampsia as an acute infectious disease of rather short duration rarely lasting over 48 hours.

In reference to emptying the uterus, I have never used that $40 instrument, I prefer the fingers for dilating. It takes about an hour to dilate the cervix and another hour to dilate the lower segment of the uterus. That is the time I would usually consider the safe limit in accouchment force, especially in primiparæ.

I would like to hear more about the use of chloral. This, I believe is used largely by the French, morphia by the Germans. Stroganoff treatment combines the two.

Dr. George M. Boyd: I think we owe a debt of thanks to the essayists for the interesting and exhaustive papers on eclampsia. We could probably discuss the subject until midnight and be enlightened in some respects and yet be a little farther from the solution in the end. There is no doubt but that we can do most by prophylaxis. If we can follow our patients through pregnancy we will not have cases of eclampsia. I agree with the remarks made by Dr. Norris regarding the hygiene of pregnancy, involving the care of the bowels, diet and exercise which will avoid the result of eclampsia. We do not know what produces the toxemia, and we do not know what drugs to use in its treatment, I think it is a mistake to lay great stress on any one drug. Dr. Norris speaks highly of viratrum viride. I have used it for five or six years and find that it is more of a depressant than other drugs of its character. I feel convinced from my practical work that it is a good thing to empty the uterus, and I believe the best dilator is the fingers. The drugs which seem to me to be chiefly indicated are chloral and morphia with chloroform for the convulsions, but am still doubtful as to the efficiency of any medication in this disease.

Dr. D. E. Longaker: It seems fitting that the importance of the medical treatment of eclampsia should be emphasized. I am confident that it is not a mistake to treat the convulsions first, and I am sure that the best results will be obtained in this way. We know that in probably one-third of all cases of eclampsia the convulsions first occur post-partum; and, where the convulsions occur delivery, late in pregnancy without any sign of labor, I am convinced that I have seen the most disastrous results occur by precipitate delivery probably neglecting the medical treatment. In such cases, by all means, treat the case medically, obstetrically afterwards, but by all means arrest the convulsions. Chief and best of the medical agents in my experience has been veratrum viride systematically used to the amount of probably five or seven drops of the tincture or of the liquid veratrum viride used probably at fiifteen minute intervals until the pulse is brought below sixty. I believe it is the rule that when the pulse is kept below sixty convulsions do not occur. Some years ago one of the Fellows of the American Gynecological Society went into the subject of the treatment of veratrum viride rather exhaustively with the result of recommending it most highly when used systematically in this way. Next to veratrum viride the chloral and bromide administered by the rectum I have found valuable to the amount of dram doses of the chloral and proportionately as much of the bromide. Next to these comes the eliminative treatment and one drug which I have found of value used over a long period is Elaterium. In my experience the results are better under energetic medical treatment than under the more radical surgical or obstetric.

Dr. Barnes closes: I am glad for two or three reasons that the discussion turned chiefly upon treatment; first, because of its more immediate practical importance, and because we cannot settle the question of etiology in one evening; and, second, because there is not so much for me to respond to so far as etiology is concerned. One of my acquaintances has the honesty to say that he is even more confused since my paper in regard to the etiology than before. I shall not feel elated, but I have such a sense of the humorous that I am more pleased than injured. I shall take the more agreeable consideration, thinking that he means that we cannot comprehend the question of etiology, and that when we discuss a difficult question we all do feel more perplexed than before. In regard to the inhalation of chloroform during the con-

Instantaneous

is the relief from the acute stinging pain of inflammations and eczematous eruptions about the muco-cutaneous margins when **Resinol Ointment** is applied. And a permanent cure is effected by this remedy with greater facility in all skin affections where a local application is indicated than by any other method. As a dressing for Burns, Carbuncles, etc., there is nothing approaches it.

Resinol Soap is the great adjunct to the Ointment, and renders the necessary bathing of the parts an aid to the cure, where the ordinary application of water and other soaps usually increases the trouble.

Resinol Ointment and Resinol Soap

Are genuine comforts to physician and patient alike.

SEND FOR SAMPLES AND TRY THEM.

RESINOL CHEMICAL COMPANY,
BALTIMORE, MD.

GREAT BRITAIN BRANCH:
97 NEW OXFORD STREET, LONDON, W. C.

CHAS. MARKELL & CO.,
AGENTS FOR AUSTRALASIA, SYDNEY, N. S. W.

Euquinine Tasteless Quinine

"A Special Advantage —Tasteless"

Dr. W. R. D. Blackwood, of Philadelphia, in writing of Euquinine, says: "This medicament is much more useful than ordinary quinine, especially with children and infants."

May be had as Euquinine pure (flaky masses) or in Merck's Tablets — 2 grn. and 5 grn.

Saloquinine

Promptly effective in **neuralgia** and **neuroses.** Saloquinine is quinine ester of salicylic acid — a tasteless powder.

Rheumatine

Deserves a high place among **antirheumatics.** Chemically, Rheumatine is saloquinine salicylate — a tasteless powder.

CLINICAL REPORTS TO PHYSICIANS ON REQUEST

MERCK & CO. UNIVERSITY PLACE NEW YORK

vulsive seizures I have used it and seen it so used that it was valueless; that is, the administration would be begun after the spasm had assumed the onset. The convulsion must be anticipated if it is to be modified or controlled.

Dr. Norris seemed to belittle the value of examination of the urine but later said he depended upon it to determine the amount of urea. We have a normal amount of urea, but in following the patients possibly find toxic symptoms regardless of this. We need to watch and guard our patients. Predisposing causes must be understood, the excretory organs and the nervous system. Our patients must be constantly interrogated. Dr. Norris also said that anemia has oftentimes a close proximity to toxemia. I have a patient now who seems to illustrate that fact. The woman has given birth to children rapidly. A child was born a year ago, and on last Sunday another was born. The one born a year ago, was weak and died and the burden of caring for that while carrying the one just born was a great drain upon her strength. A few weeks ago she had an attack of the grippe, and following that she was especially toxemic with a low percentage of urea and some hyaline casts. She tried to go into labor but was becoming irritable and worn out. Her condition emphasized the value of the rubber bag. This was introduced and remained in for several hours. She had considerable pain; the cervix was two-thirds dilated. I felt that this was much better accomplished than by hand. She subsequently delivered herself promptly.

Dr. Hammond speaks of the cases which previously had nephritis as being the most serious. I think that the purely toxemic types is the more dangerous. They are more serious because the onset is insidious and they become very toxemic before the condition is recognized. In those cases in which nephritis previously existed and is recognized the physician is on his guard.

In regard to the statement that one-third of the cases of eclampsia occur postpartum, I think that statistics will show that a little more than one-fourth occur before the onset of labor about one-half during labor, and less than one-fourth postpartum.

Dr. Krusen closes: As I said in the beginning of my paper, I think it has been pretty clearly demonstrated that there are mooted points in the treatment of eclampsia. Dr. Norris has emphasized the importance of the examination of the urine in estimating the amount of urea excreted, and commended the use of drugs stimulating the action of the liver and kidneys. In regard to venesection, I am sorry I did not use it in cases in which I employed veratrum viride. It is not to be supposed for one minute that we would bleed a poor miserable anemic woman. I can hardly think either that one would give veratrum viride in such a case. There are positive indications for each remedy. Morphia I have found to be a good drug. We have to consider the practical side of these questions, employing the method practical under the circumstances in which we are working. It is not to be supposed either that I would give chloroform during a convulsion. It is to be given when we see the little twitching signs, the rolling of the eyes, etc., and about 30 seconds or a minute before the true convulsion appears.

Dr. Coles spoke of the different forms of eclampsia. This is an interesting point. In the treatment of eclampsia I did not have time to consider the different forms in detail.

In regard to the use of veratrum viride I think it makes a difference whether Norwood's tincture or the ordinary tincture is used.

Dr. DaCosta spoke of the character of the blood. That is often noticed and is one of the evidences in profound toxemia of the changes that take place in the blood.

I think Dr. Hammond's remarks form another evidence of the prevention of apoplexy. It doses not matter so much as to the amount of blood that is drawn, but as to the effect upon the pulse.

In regard to Edebohls' operation, I had thought of that after reading papers on decapsulation of the kidney, but I do not know that any obstetrician has had the courage to perform it during pregnancy. If, however, it is indicated in acute Bright's disease why should it not be indicated in the condition under discussion.

Straganoff's name seems to be closely associated with eclampsia and I have often wondered whether his statements were absolutely accurate, because it seems to me it is wonderful to report such a very slight mortality. There is no American obstetrician who can give statistics compared to his.

Chloral I did not mention because I do not use it. Morphia, I find takes its place. Why should I give chloral and sodium bromide if I can get rid of the nervous irritation as quickly by morphia? It is often impossible to give anything by the mouth and if given per rectum is apt to be expelled by the convulsive action of the patient. It also interferes with the injection of salt solution which I feel to be valuable in these cases. The method of dilatation I have always employed is that of manual.

The New St. Charles Hotel,

NEW ORLEANS, LA.

This is the Largest, the Best and the Only Fire-Proof Hotel in the City.

It is run on both American and European plans. It will be headquarters for the members of the American Medical Association at their annual meeting in New Orleans from the 5th to the 8th of May. This is one of the best hotels in the country and the most popular winter resort hotel in America. It accommodates over 700 guests, and has 150 private bath rooms. : : : : :

FOR ANY INFORMATION REGARDING RATES ADDRESS

A. R. BLAKELY & CO. Props.

NEW ORLEANS, LA.

A Timely Word About Prophylaxy.

Professor Nothnagel, of Vienna, in a most appropriate paper before the recent Medical Congress in Egypt pointed out to us that the highest aim of the medical profession is not so much the Therapy (the healing) but the prophylaxy, (the prevention of diseases). Three cardinal points are always to be observed viz: 1. The Indicatio causalis (the cause of the disease.) 2. The Indicatio morbi (the disease in itself) and 3, the Indicatio symptomatica (the symptoms of the disease.) The most difficult point is the first named "The Indicatio causalis," for the obvious reason, that only in a very limited number of diseases do we really and positively know the cause. "It is now established beyond any doubt," the learned professor said verbally, "that for instance the common trouble called 'a cold' is only the consequence of a general pathogenic condition of the inner organs, and not a 'morbus sui generis' (a disease of its own kind.) For a great many number of diseases, caused by disturbances in the process of correct metabolism, we scarcely possess the first stages of an etiological science." Therefore we cannot strongly enough recommend to every thinking physician the use of such means which have proven beyond a doubt their merits as prophylactic remedies. Foremost amongst them stands Kutnow's Improved Effervescent Powder as a prophylactic Cholagogue, Diuretic and, last but by no means least, an Anti-Arthritic. Its pleasant taste, its gentle and at the same time most efficient action has earned for it the unanimous endorsement of the Medical Fraternity in Europe as well as in our own country.

Best by Clinical Test.

I have tried many preparations of cascara, and the result has been that after each trial I have gone back to Kasagra, it being the only preparation whose results could be depended upon.

E. D. Moffatt, M. D.
Toronto, Ont.

Notice-- SANDER & SON EUCALYPTOL is invaluable in inflammation of the mucous membranes, and in all septic and infectious diseases. Apply to Dr. SANDER, 88 Lincoln Avenue Chicago, Ill. for sample and literature of Sander's Eucalyptols Meyer Bro.'s Drug Company, St. Louis, Mo., Sole Agents.

The Treatment of Septic Infections with Intravenous Collargolum Injections.*

By Dr. Crede, Surgeon-in-Chief to the Dresden-Johannstadt Municipal Hospital.

The author has used silver in the local treatment of wounds for the last seven years, and has treated internal affections with the remedy for six years. For the former purpose the citrate of silver or itrol has been chiefly employed; for the latter the soluble so-called colloidal silver or Collargolum has been used.

In his earlier publications Crede has shown that a general disinfection of the body by the salts of silver is impossible, concluding, at first from theoretical considerations, which were bore out by his later clinical tests, that the then unknown water-soluble *metallic* silver, Collargolum, is a most powerful internal antiseptic.

Soon after the writer's first publications upon the subject Collargolum was extensively used in veterinary sugery by Dieckerhoff, Roder, Evers and Winkler, more especially by intravenous injection. Their results were typical, and have been gotten by all subsequent investigators; and they have been of the greatest importance in furnishing a more reliable basis for the employment of soluble silver in human medication than was possible by means of animal experimentation in the laboratory. The veterinarians deserve thanks for the thoroughness of their investigations, more especially as their method, that of intravenous injection, is the one most difficult to introduce into human therapeutics. It is natural, however, in the present high tide of new remedies and the prevailing prejudice in favor of serum therapy, that the profession should show some conservatism in the reception of the new antiseptic.

As yet detrimental effects have never been observed from the employment of Collargolum; and intravenous injections have especially proved to be entirely safe, even when performed by the practitioner without assistance, and under greater disadvantages than when done in the hospital. Crede has convinced himself of the absolute harmlessness of Collargolum, having employed it extensively for two years not only in surgery in the forms of silver gauze, boughies, suppositories, pill-masses, solutions for parencymatous injections and instillations into septic wounds and the body cavities, but also in general septic infections. For this latter purpose he has used it mostly in the form of the ointment, which is prepared only with the purest fat, since vaseline and similar media greatly diminish its absorbability.

The intravenous injection of Collargolum by no means does away with the use of the Unguentum Crede; on the contrary, the great majority of the cases can be cured by ointment inunction, which is more readily employed and more agreeable to the patient. But where the infection is so virulent that the greatest possible rapidity and energy of action is required, the intravenous injections are indicated. Even these, however, cannot always cure the dying or cause existing abscesses or necroses to disapper at once; as is unfortunately so often expected.

When, however, the Collargolum is employed in time, before the brain and heart have lost their powers of resistance, and before metastases have occurred, there is a plain improvement in a few hours after its introduction into the blood. The patient becomes quieter, and feels better; sweating may set in, and the pulse and temperature improve. In severe cases the improvement may be short and transitory, and the injection must be repeated in eight to twelve hours; but it usually persists for from twenty-four to thirty-six hours, about as long as the silver remains in the body. The quicker the improvement disappears, the sooner must the silver be given again and the larger the dose required. With cocci of slight virulence, though the clinical picture may be serious, the effect of the injection often lasts from two to four days, and then Unguentum Crede may be employed for the further treatment. Cumulative action does not occur; as many as twenty injections have been given to one patient, though Crede himself has never given more than seven.

It is undeniable that the Collargolum, as at first supplied, could not be regarded as a perfect preparation. It was not entirely soluble, its solutions were extremely sensitive to the presence of minute impurities, and they were prone to partially precipitate and thus change the strength of the fluid. Since June, 1902, Crede has employed a better preparation, the final result of much effort on the part of the manufacturers, which is practically free from these disadvantages. It is almost entirely soluble and is permanent; it is much more resistant to the action of heat and light; and, above all, it is much less sensitive to foreign substances, so that it remains unchanged in water containing small quantities of salts.

This improved Collargolum, which the von Heyden factory now supplies, effects an important advance in the silver treatment and opens a wide field for its employment in ophthalmology, infections of the gastro-intestinal canal, bladder affections, gynæcology, etc.

(*Abstracted from "Archiv fur klinishe Chirurgie", vol. 69).

American Medical Association

NEW ORLEANS, LA.

MAY 5-8, 1903.

THE WEST POINT ROUTE

Atlanta and West Point Railroad,
The Western Railway of Alabama,

For the above occasion will sell round trip tickets at

ONE FARE

Dates of sale May 1st to 4th inclusive, limited to return, by extension, May 30th. This line is the shortest and most picturesque Route, passing ∴ ∴ ∴ ∴ ∴ ∴

"The Beautiful Gulf Coast;"

Operating the finest and fastest trains in the South. All modern elegancies of travel. Full information from all agents. Pullman reservations and schedules on application. ∴ ∴

J. B. HEYWARD, D. P. A.
Atlanta, Ga.

All of Crede's subsequent statements refer to the improved product; and he has never seen the troublesome though harmless chills so common after the intravenous injection of the older solution follow its use. The syringe which should hold from 5 to 10 grams (1⅓ to 2½ drams) should not be cleansed with chemical solutions, but should be sterilized by boiling followed by distilled water or alcohol. Several reported failures have clearly been due to neglect of these precautions or to the use of decomposed solution; which latter will hardly occur in the future. A few drops of the new Collargolum in water should give a nice, clear brown color; while the decomposed Collargolum gives a turbid, grey emulsion. There will be no difficulty in keeping it; and it is not subject to bacterial influences, it does not need sterilization. Even solutions of the older preparation keep for many months at all seasons. A gram (15 drops) of the silver solution itself may be used to cleanse the syringe and needle when other methods are unavailable.

The technique of the intravenous injection in subjects with well filled, visible veins is extremely simple. A bandage or handkerchief is tied around the pendant arm tight enough to render the veins at the elbow tense and swollen. The detached needle is inserted through the cleansed skin into the vessel, the flow of blood showing when its point is free in the vein. The canula is steadied with the left hand and the syringe not quite filled with the silver solution is attached; a small amount of blood is then drawn up into the solution, so that any air bubble that may be present rises to the top of the fluid and is not injected. During the injection the arm is steadied in a horizonial position to facilitate the rising of the air. Introduction of the needle attached to the syringe, and determining the fact of its introduction into the vein by the mobility of its point is liable to occasion error.

The operation is not quite so easy in fat or anæmic individuals, in whom the cutaneous veins may be invisible. Crede places such patients on the extreme left ege of the bed and permits the entire upper arm to hang pendant for from five to ten minutes before bandaging. Then he waits five or ten minutes more; by which time the veins may be found unexpectedly prominent. In some individuals it is better to use the veins of the hand or foot, or varicose vessels of the leg. Crede has used them all; excepting the external jugular, apparently the most suitable vessel, and the one used by the veterinarians; but he would not hesitate to do so in case of necessity.

In 90 per cent. of the cases the vessel can be reached directly through the skin. The injection should be made slowly, and with two to four pauses, so as to permit a better distribution of the Collargolum by the blood current and to watch the patient's sensations.

When the vein cannot be reached directly through the skin, it must be laid bare; and Crede now recommends a very simple procedure for that purpose. With the bandage left in place an incision 1 centimeter ($\frac{4}{10}$ inch) long is made over the long axis of the vessel. An artery forceps is then clamped on the subcutaneous connective tissue of each side of the vessel and allowed to hang down on each side of the limb; these take up less room than an assistant's fingers. The vessel is then punctured in the same way as through the skin. No ligation is required, and a single suture suffices to stop hæmorrhage and close the wound. Besides its simplicity the procedure is a direct continuation of the ordinary method; it makes no impression of failure to reach the vein upon the patient or his friends; the knife, thumb forceps, and a threaded needle can be prepared beforehand in every case. The ligation of the arm will have lasted long enough to almost entirely rob the incision of its pain.

Collargolum is not effective when employed subcutaneously; but it may possibly be absorbed when injected into very vascular muscular tissue, and Crede proposes to continue Landerer's experiments in this direction.

Crede puts on record the fact that neither in his own extensive experience nor in that of others has there ever been any mishap from the intravenous Collargolum injections; there has been no undesirable general reaction, nor any trouble from the local puncture of the vein.

The solubility of the improved Collargolum allows the use of a 2 per cent. instead of a 1 per cent. solution; so that 2 to 10 cubic centimeters (½ to 2½ drams) on an average 4 to 6 cubic centimeters (1 to 1½ drams) or 0.08 to 0.12 grams of Collargolum (1⅕ to 1⅘ grains) suffices for an injection. Though his experience in that direction is still limited, the author believes that it will be possible to use a 5 per cent. solution and a single hypodermic syringefull (15 drops) of the injection fluid.

In all the hospital cases recorded by Crede and his assistants very exact observations were made and careful histories were kept. Cultures repeatedly demonstrated the rapid diminution of strepto- and other cocci in the blood after the intravenous injections, even in cases in which the Collargolum was administered too late to cure. The non-increase of leucocytes was

MODERN METHOD of DELIVERY

NO INJURY TO MOTHER NOR CHILD

BLADES UNITE THE NET

BLADES APPLY THE NET

ST. CYR'S OBSTETRICAL TRACTOR

BY

PRACTICAL OBSTETRICIANS

Price, $15.00 (COMPLETE with one-half dozen Chinese Vegetable Silk Nets.) **Nets, each, 10 cents**

United States Patent November 11, 1902. Canadian Patent December 9, 1902.
REMIT by Postal or Express Order. Also Expressed C. O. D.

Why Not Order NOW and be Prepared.

Money Refunded upon return of instrument, if in any way unsatisfactory after THIRTY DAYS' TRIAL.

ORDER TO-DAY.

The Most Humanitarian Method of Delivery.

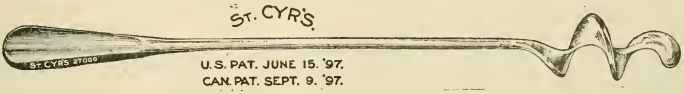
Upon Application we will mail you an illustrated Monograph.

Sole Manufacturers and Retailers . . . . **VICTOR V. MAY & CO.,** (Incorporated.)

SURGICAL AND PHARMACEUTICAL SPECIALTIES.

538 Ashland Avenue, CHICAGO, ILL.

The Original Spiral Curette and Evacuator.



The St. Cyr Curette is so perfectly constructed that a change in its form, or shape, will make it imperfect and thereby impair its efficiency.

THREE SIZES **Price $3.50 Each, Any Two $6.50, All Three $.800** LARGE SMALL MEDIUM

☞It makes sepsis practically impossible as it has no groves, no holes, no extraneous parts to carry septic matter into the uterine cavity. Furthermore, it will not only detach but evacuate as well.

It curettes and evacuates uniformly without danger or pain.

Its construction is perfect and well adapted for successful operations.

No physician can afford to be without a complete set of three "THE ORIGINAL" ST. CYR SPIRAL CURETTES AND EVACUATORS.

EVERY ONE IS GUARANTEED TO OPERATE.

SOLE MANUFACTURERS

VICTOR V. MAY & CO., (Inc.) Surgical and Pharmaceutical Specialties **538 Ashland Ave., Chicago, Ill.**

Restores Vitality

Hydroleine presents to the lacteals a pancreatized cod-liver oil, in a form which insures its immediate absorption and assimilation; stimulates the flow of bile; brings a better appetite; checks the dry, hacking cough; restores vitality; and steadily increases the weight, when plain cod-liver oil fails.

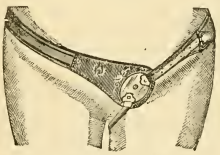
Sold by druggists generally.

Samples Free to Physicians

THE CHARLES N. CRITTENTON CO.
115-117 Fulton Street, New York
Sole Agents for the United States

Flavell's Elastic Trusses,

Can be Worn Day and Night.



SINGLE TRUSS	Adults
A. Plain	$1.50
B. Fine	2.00
C. Silk	2.50
DOUBLE TRUSS	**Adults**
A. Plain	$2.50
B. Fine	3.00
C. Silk	4.00

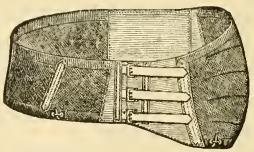
PNEUMATIC PADS

Give circumference of abdomen on line of Rupture. State if for Right or left.

We Solicit the Physician's Patronage Direct.

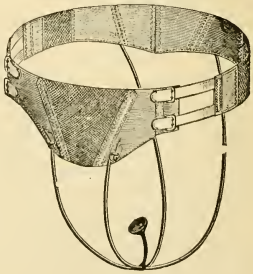
ABDOMINAL SUPPORTER.

Give exact circumference of abdomen at K. L. M.



Silk Elastic.....$3.25
Thread Elastic..... 2.50

Flavell's Uterine Supporter.

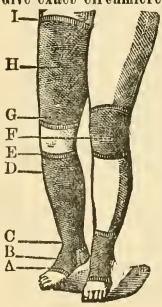


Give measure 2 inches below Naval.
State if for Prolapsus, Retroversion, or Anteversion.

NET PRICE TO PHYSICIANS
$2.50

ELASTIC STOCKINGS.

Give exact Circumference and Length in all Cases.



NET PRICE TO PHYSICIANS.

	Stout Silk each	Fine Silk each	Thread each
A to E	$2.50	$2.00	$1.50
A to G	4.25	3.50	2.50
A to I	6.00	5.00	4.50
C to E	1.50	1 25	1.00
E to G	1.50	1.25	1.00
A to C	1.50	1.25	1.00

Goods sent by Mail upon receipt of price.

Safe delivery guaranteed.

Send your Orders Direct to

G. W. FLAVELL & BRO.,

1005 Spring Garden Street, Philadelphia, Pa.

TABLE OF CONTENTS FOR APRIL, 1903.

Original Communications.

Hemorrhoids—With Report of Case, by W. B. Pigg, M. D., South McAlester, I. T. 223

Some Points in the Treatment of Functional Disorders in the Sexual Organs of the Male, by Frederic R. Sturgis, M. D., New York 226

Adenoid Hypertrophy by Clarence Porter Jones, M. D., Newport News, Va.. 228

Diphtheria, by O. C. Kessler, M. D., Ravenwood, Missouri 231

Malaria and Its Treatment, by Dr. E. N. Wright, Olney, I. T 233

Hyperplasia and Hypertrophy of the Uterus, by Charles G. Geiger, M. D., St. Joseph, Mo 235

Editorials.

The Legal Definition of the Practice of Medicine in North Carolina 239

Burns and Scalds 239

The Intravenous Injection of Formic Aldehyde in Blood Poisoning 240

Beards on Operating Surgeons 241

Hot-Air in Rheumatism ... 241

Some Early Symptoms of Paralysis 241

The Influence of the Blood on the Nerve Centers 242

Giddiness 242

Obituaries.

Dr. T. Gillard Thomas, New York 243

Dr. William Elias B. Davis, Birmingham, Ala 243

Dr. Joseph Christopher Shepard, Wilmington, N. C 244

Correspondence.

The fourth manifesto giving opinions of physicians on Alcohol 244

The Thanks We Get 245

The Fiftieth regular annual meeting of the North Carolina State Medical Society 246

The Hospital Nurse, by Lillian Olive Huey 246

Book Notices.

A Text-Book of Practical Medicine, by William Gillman Thompson, M. D., New York 246

Manton's Obstetrics, by W. P. Manton, M. D 247

The 1903 Standard Medical Directory 247

Diseases of the Skin, by H. Radcliffe-Crocker, M. D. 247

Diseases of the Rectum and Anus, by Samuel Goodwin Gant, M. D 248

A System of Physiologic Therapeutics, edited by Solomon Solis Cohen, M. D 248

Saunders' American Year-Book, under the editorial charge of George M. Gould, M. D 248

Progressive Medicine. Fifth Annual Series, Edited by Hobart Amory Hare, M. D 249

Transactions of the Sixty-Ninth Annual Session of the Medical Society of the State of Tennessee .. 249

Therapeutics of Infancy and Childhood, by A. Jacobi, M. D 250

A Manual of Medical Treatment of Clinical Therapeutics, by I. Burney Yeo, M. D 250

Abstracts.

Appendicitis from a Physician's Standpoint 259

Acquired Dislocation of the Hip in a Child 260

Appendicitis 269

Butter of Antimony in Surgical Tuberculosis 254

Cure of Rodent Cancer by Electricity 252

Convulsions in Typhoid Fever 257

Conservative Operations on the Ovary 261

Douches and Irrigants 267

Diet in Asthma 269

Early Treatment of Quinsy 252

Electrothermic Hysterectomy 264

Forty Cases of Typhoid Fever Treated by Benzoyl-Acetyl Poroxide (Acetozone) 238

Fingernails 264

Fracture of the Neck of the Femur in Children 270

Habitual Constipation in Infancy 266

Intravenous Administration of Anti-Diphtheritic Serum 237

Importance of a more Radical Operation in Carcinoma Cervicis 251

Injurious Renal Mobility in Relation to Gynæcology; Founded on the Examination of One Hundred Consecutive Patients 253

Intestinal Obstruction Due to Gall-Stones 257

Incontinence of Urine in the Female 258

Intraperitoneal Hemorrhage 259

Intravenous Injections in Syphilis 260

Infective Arthritis 262

Influence of Drugs on Blood Pressure 263

Notes on Sleeping Sickness 254

Necrosis and Spontaneous Elimination of a Large Uterine Fibroid 255

Pathology of the Tissue Changes Induced by X-Rays 265

Remarks on Acute Myelitis, and Report of a Case of Tuberculous Meningo-Myelitis 255

Respiratory Exercises in the Naso-Pharyngeal Lesion in Childhood 256

Splenic Anemia 262

Serumtherapy Against the Bacillus of Dysentery 266

The Future of Electrotherapeutics 250

The Evil Effects of Sugar in Subjects of Incipient Cataract 253

The Diagnosis and Treatment of Various Forms of Septic Synovitis 254

The Transference of Bovine Tuberculosis to Man 256

The Education and Development of Neurotic Children 257

The Operative Treatment of Tubercular Arthritis. 258

The Importance of the Early Treatment of Catarrhal Conditions of the Upper Air Tract in Children 258

Traumatic Rupture of the Spleen 261

The Treatment of Nocturnal Incontinence of Urine in Children 261

The Treatment of Pleurisy with Effusion 265

Talma's Operation 265

The Occurrence of Gout in the United States 266

The Etiology of Dysmenorrhea 268

The Surgery of Acute Appendicitis 268

Ureters 267

important as affording an explanation of the action of the Collargolum on the infected organism; and until the contrary is demonstrated, Crede holds that it is a purely bactericide one similar to that of antiseptics in non-living fluids. If the action of the drug were antitoxic merely there would be a great increase in lymphoid cells, similar to that which occurs as the natural protective reaction of the tissues themselves in most of the infectious diseases. This was never found after a Collargolum injection, even when there was brilliant improvement from it. The number of leucocytes always remained stationary or retrogressed.

The large number of cases that Crede has treated with intravenous Collargolum injections were all serious ones of the most varied kinds, the milder ones being invariably given silver inunctions. He laments the fact that the nature of the internal silver treatment is still so largely misconstrued; it is often either employed too late or is not used at all in cases that directly call for its administration. Thus a severe infectious angina, with possible sequelæ of the most serious nature, disappears with almost absolute certainty after a single thorough inunction made upon the first or second day; and a beginning mastitis can be made to retrogress without a tedious suppuration by similar means. In ophthalmology and otology also many an affection that would otherwise necessitate months of treatment may be similarly cut short.

The general public is greatly afraid of blood-poisoning, and readily permits the administration of any remedy that is an antidote to it. The treatment should be begun as early as possible, however; for it does no harm, even if it afterwards appears that it was unnecessary. Inunctions should be employed in the beginning, and in cases that are manifestly mild; but as soon as the patient's condition becomes serious, intravenous injections should be resorted to. When Crede operates in septic cases he administers an intravenous Collargolum injection whilst the patient is still narcotized, or has an assistant give it while he is operating. This does no harm, even if the operation itself is the essential therapeutic measure, and it may be the means of saving the patient's life.

The cases that Crede has treated by intravenous injection include severe phlegmon and gangrene, general sepsis, puerperal fever, pyæmia, septic osteomyelitis, septic polparthritis, ulcerative endocarditis, severe erysipelas, peritonitis, erythema nodosum, anthrax and hopeless cases of phthisis. Many cases came in apparently moribund, and the injections were administered without much hope of success; yet even of these several were saved.

Those that still had powers of resistance got well almost without exception, showing the well-known typical and striking picture of the internal antiseptic action of the silver. The phthisical cases were all in the last hopeless stages of the disease, and were treated more with the idea of observing the action of the remedy upon them. It did none of them any harm; on the contrary, the temperature, the pulse. and more especially the general condition was markedly improved for from one to several weeks. Theoretically there should be a field for this mode of treatment in the earlier stages of the disease; but Crede had no opportunity to try it.

There was a surprisingly rapid and permanent improvement and cure in several cases of relapsing septic polyarthritis, in which all other remedies had failed.

An Old Friend's Endorsement.

In the "Reference Book of Practical Therapeutics" compiled by our old friend, Frank P. Foster, A. M., M. D., *Editor of The New York Medical Journal*, we note the following: "Antikamnia Tablets have been much used and with very favorable results in neuralgia, influenza and various nervous disorders. As an analgetic they are characterized by promptness of action, with the advantage of also being free from any depressing effect on the heart." We are pleased at this expression of faith in the efficacy, promptness and absence of untoward after-effects of this most excellent remedy. We feel that the statement applies not only to Antikamnia Tablets, but to any of the tablet specialties offered to the medical profession by The Antikamnia Chemical Company, of St. Louis, Mo. Physicians desiring samples should write to this Company for them and they will be promptly forwarded, particularly, if they mention CHARLOTTE MEDICAL JOURNAL.

Kasagra is not a purgative, and if used as such is always disappointing in results. It is a tonic laxative and should be given in small, frequently-repeated doses. Its chief function is to restore tone to debilitated intestines—to cure habitual constipation—and not merely to unload the bowels and give temporary relief.

NEW ORLEANS POLYCLINIC.—Sixteenth annual session opens November 2, 1902, and closes May 30, 1903. Physicians will find the Polyclinic an excellent means for posting themselves upon modern progress in all branches of medicine and surgery. The specialties are fully taught, including laboratory work. For further information address NEW ORLEANS POLYCLINIC, POSTOFFICE BOX 797, NEW ORLEANS, LA.

CAPSULES

of Cypridol do not salivate or produce dyspepsia and the emaciation which is inevitable with other mercurials. 1/32nd grain in each capsule.

Sold in Bottles of 50.

CYPRIDOL

A 1% SOLUTION OF MERCURIC IODIDE IN AN ASEPTIC OIL

IN

SYPHILIS

INJECTIONS

of Cypridol are vastly superior to all soluble or insoluble mercurials used hypodermically.

They are non-irritating and free from all untoward after effects.

Dispensed only in graduated tubes.

6 tubes in a box.

CEREVISINE

succeeds admirably in the treatment of furuncles, urticaria, acne and boils which promptly subside and disappear under its influence.

PURE DESICCATED YEAST

CEREVISINE

IN

SKIN DISEASES

CEREVISINE

Is indicated in cases of psoriasis, herpes and eczema; its effects being associated with corresponding improvement in the general health.

U. S. Agents, E. FOUGERA & CO., 30 N. William St., New York.

The Baltimore Medical College.

Preliminary Fall Course begins September 1, 1902.

Regular Winter Course begins September 25. 1902.

Excellent Teaching Facilities; Modern College Buildings; Ideal Lecture Hall and Amphitheaters; Large and Completely Equipped Laboratories; Capacious Hospitals and Dispensary; Lying-in Department for Teaching Clinical Obstetrics; Large Clinics; Send for Catalogue, and address DAVID STREETT, M.D., Dean. 712 Park Ave., Baltimore, Md.

To Prevent Infection.

A practical and helpful series of rules for the sanitary management of contagious and infectious diseases has been prepared by The Palisade Manufacturing Company, of Yonkers, and issued in pad form with cover.

It is intended that when called to a contagious case the physician shall sign and hand to the attendant one of these printed sheets of "Precautions to be Observed by Patient, Family and Attendants." This series of rules, couched in plain, every day English, has been carefully prepared and the information given is accurate and up to date. The delivery of such a signed code of instructions not only impresses the family favorably, but also relieves the physician of all responsibility should any of the necessary precrutions be omitted. The advertising of Borolyptol is so arranged that, if the physician desires, he can detach all reference to the preparation before handing the directions to the family.

One of these pads (thirty-two sheets) will be mailed to any physician who may apply for same.

The Dietetic and Hygienic Gazette, commenting upon the dietetic value of Iron says:

"Pathologists have given pointers as to the special condition of the iron in the system and in the circulating medium, and the newer preparations aim to imitate that condition. Most of them have a brief day of fame and then drop out of sight for the reason that they lack some element of eligibility. Few are standing the test of time and the critical ordeal of the clinicians. Foremost among these it is safe to name Gude's Pepto-Mangan. It is probably the nearest approach to a physiologic reproduction yet devised. It deserves its universal popularity, and its manufacturers do well to restrict its sale to strictly ethical channels."

To the Editor of Charlotte Medical Journal,

Charlotte, N. C.

Dear Sir:—At the last (fifty-third) meeting of American Medical Association, held at Saratoga Springs, June 10-13, 1902, a joint resolution from the Sections of Cutaneous Medicine and Surgery and Hygiene and Sanitary Science was introduced in the House of Delegates as follows:

Whereas, There is a burning necessity to check the spread of venereal diseases, and, assuming that the States cannot with impunity ignore the condition, it lies in the province of the medical profession to discuss and recommend to the respective State Legislatures and Municipalities means regulamentative, but social, economic, educative and sanitary in their character, to diminish the danger from venereal diseases.

"*Resolved*, That the Section on Cutaneous Medicine and Surgery of the American Medical Association invite the section on Hygiene and Sanitary Science to cooperate with the Section on Cutaneous Medicine and Surgery in bringing about a propaganda in the different States, looking toward a proper recognition of the dangers from venereal diseases, and to arrange for a national meeting under the auspices of the American Medical Association for the prophylaxis of venereal diseases, similar to the International Conference for the Prophylaxis of Venereal Diseases, which meets again this year at Brussels, under the authority of the Belgian Government."

This was later submitted to the House of Delegates, which endorsed the action of Section and adopted the following:

"*Resolved*, That a joint committee of six from the Sections of Hygiene and Sanitary Science and Cutaneous Medicine and Surgery be appointed by the President to stimulate study in and uniform knowledge of the subject of the prophylaxis of venereal diseases and to present to the American Medical Association a plan for a national meeting, similar to the International Conference for the Prophylaxis of Venereal Diseases, which meets again this year in Brussels, under the auspices of the Government of Belgium."

The Committee on Prophylaxis of Venereal Diseases consists of:

Dr. Henry D. Holton, Chairman, Brattleboro, Vt.

Dr. Ludwig Weiss, Secretary, 77 East 91st St., New York.

Dr. George M. Kober, 1600 "T" St., Washington, D. C.

Dr. W. H. Sanders, Montgomery, Ala.

Dr. L. Duncan Bulkley, 531 Madison Ave., New York City.

Dr. Frank H. Montgomery, 100 State St., Chicago, Ill.

The peculiar social, racial and political conditions of our Country are so different from those on the Continent that they necessitate an expression of solely American ideas on this mooted question, both from a socio-economic and sanitary point of view.

The Committee desires the support of the medical profession and the aid and powerful collaboration of the Medical Press of the Country to help them in this work. It takes the liberty of soliciting expressions and views editorially and otherwise, and would be glad of personal correspondence from those supporting the movement and who will contribute by papers, etc., to make it a success in case the House of Delegates should favor the holding of such a Congress.

By giving this a place in your esteemed paper, the Committee feel that you have aided materially in forwarding the work entrusted to them. I remain with thanks,

Very truly yours,

Ludwig Weiss, M. D.,
Secretary of Committee.

Extract from an article entitled "The Heart in Typhoid and Malarial Fevers," by Dr. S. Aug. Freund, Berlin, Germany in November number Medical Brief.

Have I a case of fever? Then I do not lose sight of the enteric disorder; and yet with my thoughts upon that, I shall remember that there is a heart that is liable, at any hour, to complicate matters. That heart calls for the bromidia. It prevents the irritation, the poisoning. It cures the irritation, the poisoning. I can not dispense with it. How did I learn this? Partly (as I have outlined) by experience, and partly by surgical experience. What do I mean by surgical experience? This. It is after the shock, after the operation may be, after the fever invades. What is that which we say? "All will go well, unless heart failure should ensue." We all know that expression. It is heard every day. But since I began to employ bromidia for the pain, this has been eliminated. I never dread "Heart failure" when I administer bromidia in my surgical cases. This is tantamount to saying that I never dread and never fear it, as in all surgical cases, without an exception, I give bromidia. Having had such results there, there should be no need to ask where the principal lesson was learned in this matter of the fevers. I would not treat a surgical case and omit bromidia. I would not treat typhoid or typho-malarial fever, and omit bromidia.

IMPORTANT NOTICE

American Medical Association

NEW ORLEANS, LA.

MAY 5th, 8th, 1903.

—THE—

Louisville and Nashville Railroad

Offers a most delightful trip along the beautiful

GULF COAST,

passing through

Montgomery, Mobile, Biloxi,

Beauvoir (The Home of Jefferson Davis,)

Pass Christian and Bay St. Louis.

Be Sure Your Tickets Read Via the L. & N.

ONE FARE ROUND TRIP

Tickets sold May 1, 2, 3, 4, good returning ten days from date of sale. Return limit extended to May 30th, by depositing ticket with Joint Agent and on payment of fifty (50) cents. : : : : :

Through Coaches, Pullman Drawing Room Sleeping Cars, and Dining Cars, without change. : :

Call on your nearest Ticket Agent for rates, schedules and full information, or address, : :

J. G. HOLLENBECK.

District Passenger Agent, ATLANTA, GA.

Schering's Formalin Lamp in Whooping Cough and Other Infections.

The Chicago Health Department (Bulletin of February 7, 1903), recommends the use of Formalin vapors in the treatment of whooping cough in accordance with the method of Dr. J. Cenex, who reported "On the Cure of Pertussis by Means of Formalin Vapors," as follows:

"My experience with Formalin vapors in infectious catarrhs and in influenza induced me to try them in whooping cough, with the following results:

'Last summer a nurse girl, fourteen years old, infected a child with pertussis. The nurse must have had it for many weeks, the cough was distressing and frequently caused vomiting. The attacks mostly occurred during the night. Without any other medication, I placed nurse and infant in a sitting room and evaporated in a Schering Formalin Lamp four or five Formalin Pastils per 1,000 cubic feet of air space. After fifteen minutes, they were taken into a room which had previously been disinfected with about thirty pastils per 1,000 cubic feet. The children became a little paler, had less appetite, the eyes were irritated and had a sleepy appearance; but I observed no other untoward effect. The same night the girl coughed very much less, and afterwards not at all, and the baby entirely lost the cough.

"After this and other observations, and after the continuous use of the Formalin Lamp for room disinfection, I adopted its systematic use in peitussis in accordance with the method described above."

The author recounts seven other cases rapidly cured by the same method, and concludes:

1. By the proper inhalation of Formalin vapors it is possible to destroy the germs of whooping cough—those on the mucous membrane of the respiratory organs as well as those in the surroundings. The disease is cut short and further infection prevented.

2. If the removal of patients acts beneficially, it is only reasonable to assume that disinfection of the patient's dwelling is sufficient to frequently cure him.

3. It is advisable to thoroughly disinfect chools, hospitals, churches, etc., from time to time with Formalin vapors.—Abstracted from the Zeitung der bohmischen Aerzte, Prague, September 14, 1902.

A Diagnostic Chart of Respiratory Diseases.

We have lately received one of the most reliable differential diagnosis charts, covering diseases of the lungs, pleura, bronchi, trachea and larynx, which it has ever been our privilege to see. The data presented is from the pen of Dr. Edward C. Hill, and evidences a great amount of painstaking work on his part. Something better than forty-five diseases affecting the respiratory organs are considered, and after each is given the etiology and diagnostic evidence gained from inspection, palpation, percussion, auscultation, cough, pain, dyspnea, expectoration, voice and miscellaneous. These are arranged in parallel columns, and the diseases most often confused are grouped for aid to differentiation. The usefulness of such a chart will be appreciated by every physician, and we trust that a large number of our readers will avail themselves of the generous offer of the McArthur Hypophosphite Co., Ansonia, Conn., who will mail copies free of expense to physicians making application.

From the Medical News, New York.

GUDE'S PEPTO-MANGAN THE STANDARD.

Iron preparations spring up like mushrooms in a night. The one backed by clinical evidence in hospital practice is the old stand-by Gude's Pepto-Mangan, which is the standard of known worth and which gives positive results.

The productions of Flavell's, No. 1005 Spring Garden St., Philadelphia, Pa., Manufacturers, are Elastic Stockings, Abdominal Supporters, Trusses, etc., which are offered to the Medical Profession direct. Their prompt attention to all orders and extensive facilities enable them to fill orders at once. If you have not used their goods, send a postal card for their catalogue.

Convulsions may frequently be cut short, like magic, by teaspoonful doses of Celerina repeated at short intervals. The nausea as an after effect of chloroform, or other narcosis, may generally be controlled in the same manner.

The Charlotte Medical Journal.

VOL. XXII. CHARLOTTE, N. C., MAY, 1903. No. 5

Should Physicians Use their Knowledge to Prevent Disease, or Should they Simply Treat Existing Conditions.

By J. M. Aikin, M. D., Clinical Instructor and Lecturer on Nervous and Mental Diseases, Omaha Medical College, (in the Medical Department Nebraska State University.)

The answer to this question will determine the plane upon which each physician elects to stand in the practice of his profession. The acquisition of knowledge concerning disease and its treatment implies an appreciation of the etiology unknown to the non-medical mind. When you pass from theory to practice, the problems you are called upon to solve will exceed even the individual pecularities of your patients.

A few samples,—typical and atypical of the most common diseases known to the profession,—have been indicated to you during your college course, major operations have been observed by you, and what you should do in emergencies has been reiterated in your hearing. The main principles of physiology and pathology have been kept before you during these four years of preparation for beginning practice. The time is so limited that it is scarce possible for you to comprehend the essentials for meeting the realities in a calling so noble and so fraught with responsibilities as the practice of medicine. I feel that my duty to you is not complete if I allow you to pass from the halls of theory to the fields of practice, where you must assume responsibilities involving physical, mental, and possibly the eternal welfare of your fellow companions in life, without at least calling your attention to a few practices and social conditions you will be compelled to meet. Conditions, in your daily experience, will supplant theories, and these will vary among the same people and in the same localities as commercial and social conditions change.

The study of human nature, "its facts and fancies," is the *sine-qua-non* for success in practical medicine, as in the commercial world. Moreover, a knowledge of human nature, with keen intellect and a good medical education are gifts or acquisitions possessed alike by the public benefactor and the knave, in the medical profession.

The physician's relation to the public is in many respects analogous to that of parent to child. As the parent is called upon for assistance by the child, when in trouble, and is expected to point out the course to pursue for avoidance of subsequent disasters, so the physician only rises to the plane of benevolence in his profession, when he, seeing the trend of certain habits and indulgencies, brings to bear his every influence to check their progress. Analyze the history of medicine from its beginning to the present time, and you must see that every advance has been made by men who labored to prevent as well as cure disease.

He who has the mental and educational qualifications, with a willingness to do hard and conscientious labor in the general practice of medicine, need not want for the necessaries of life. During the early years of your practice, you will doubtless have more confidence in the accuracy of your judgment than you will experience ten, fifteen, or twenty-five years subsequent to your graduation. Should your conclusions on any case be dissented from by men of more experience and of equal intelligence and education with yourself, or by men who have had opportunities for more observation during an equal period of time with you, just regard the dissension as a symptom of failure to apprehend the whole truth in the case, and that it is possible you have erred in judgment. In arriving at conclusions concerning the etiology producing indisputable conditions in the patient, we should usually balance our evidence by a comparison with facts recorded by the conservative clinicians and pathologists in our profession. What we know in our profession to-day is almost boundless when compared with medical knowledge a century since. The effects of alcohol per se on the human body to-day is not different from its action years since, yet the crystalization of thought by the best physiologists, clinicians and pathologists of the present, denominate alcohol a poison causing destructive but not constructive tissue changes. In the United States a national medical temperance society has for twenty-five years collected the best thought of several hundred eminent physicians who have the right to be heard as physicians and chemists, all of whom concur in the foregoing. A similar society on the Continent, at present numbering nearly two thousand physicians, record the same results. In Holland alone, six hundred physicians signed the following "Medical Declaration."

I. The use even in moderate quantities of spirituous liquors is always injurious. Alcohol does not assist digestion, but on

the contrary hinders it. It may excite momentarily the feeling of hunger, but it does not increase the digestive powers. We say further that many affections of the digestive powers which are attributed to twenty different causes have no other origin than the habitual use of alcoholic liquors.

II. The popular opinion that spirits are stimulants, necessary or harmless, taken during extremes of cold or heat, by persons engaged in work requiring great muscular exertion, or by those exposed to damp air, or by those whose food is insufficient, is false. These prejudices are not only contrary to experience, but it has been proved that the habitual use of alcoholic liquor has precisely the contrary effects from that which people attribute to them.

III. In all diseases, especially in which the changes are rapid, such as fevers and cholera, those who make a habitual use of strong drink are the least able to resist the power of the disease.

IV. For all these reasons spirituous liquors should not be regarded as popular drinks, but according to our view, should be looked upon as most dangerous, destructive of the prosperity and development, moral and spiritual, of the masses."

Who will say that the physician's responsibility is limited to the immediate relief of suffering? Prevent if possible any use of habit-forming preparations, be they under the guise of food or taken in fulfillment of social obligations. Never permit a verbal or written prescription of yours to give rise to the use of a habit-forming drug. I confess to a little impatience with those persons who never see intemperance except from the use of alcohol or tobacco. Many are the harmful effects of intemperance in our work, our recreations, and our eating. The pernicious habit of mixing in our stomachs articles of food that require different lengths of time for digestion, should be abandoned by all who would enjoy health. Physicians who would rise to the highest plane of success in their vocation, should learn more of dietetics and spend less time on new compounds for physic and digestives.

I make no reference to temperance agitation outside the medical profession, where zeal oft-times exceeds better judgment, for gaining good results. The use of alcohol as a beverage or therapeutically is in either case a habit upon the part of the user. The stimulation is but temporary, the reaction leaving the nerve cells of the individual with less resisting powers than before the ingestion of alcohol.

Observation and experience leads me to believe that strychnine hypodermatically, and hot milk internally, a saline by enema or transfusion will do even more for immediate stimulation, and from which there are no after depressing effects.

Of the effects on the child, whose parents, especially the mother, used alcohol, we have by Maurice Nicloux in the Journal L'Obstetrique, of March 15th, 1900, the following conclusions based on an extensive series of experiments.

"Ingested alcohol passes from the mother to the fœtus and into her milk, the proportion in the blood of the fœtus and in the milk being about the same as in the blood of the mother. Therefore the nervous condition, drunkenness, anæsthesia, etc., of the drinking mother must indicate a marked toxicity in the infant, and the whole baneful influence of alcohol upon the tissues is exerted during their process of formation with especial injury to the nervous system."

Another French author, Fernet, regarding alcohol and the death rate, says, "Although the use of alcohol is an important factor in regard to the prognosis of disease, it seldom figures as the cause of death. Yet it is the direct cause of death in the accidents of drunkennest, such as injuries, exposures to cold, etc., or when excessive drinking results in a fatal acute gastritis, gastro-enteritis, hepatitis, or pneumonia. It is a direct but more remote cause when it produces the ultimately fatal chronic conditions of arterio-sclerosis, cirrhosis of the liver, interstitial-nephritis, inflammation of the stomach and intestines, cardio-pathies, inflammation of the stomach and intestines, cardio-pathies, and meningo-encephalitis. By lessening the recuperative powers of the body, it is an indirect cause of death through such acute infections a pneumonia, influenza, erysipelas, etc., and in certain traumatic lesions. More indirectly still does it produce death by lessening the resisting power and rendering the body more susceptible to infection or by non-viable or mal-developed infants."

These abstracts are by Dr. Smith E. Jelliffe, editor of the New York Medical News, and Managing Editor of the Journal of Nervous and Mental diseases. The pages of these journals contain only the best and most scientific attainments in medical progress. Of the many such conclusions, I purposely selected from the French, because no people are more universally given to the use of alcoholic and other stimulants, and none more zealous in advocating their food value when used in moderation. An abstract in the Journal of the A. M. A. of Jan. 18, 1902, from Dr. Swan M. Burnett's essay in the Therapeutic Gazette (Detroit, Mich.) of Dec., 1901, says, "If a poisonous amount of wood alcohol has been taken,

we should expect blindness more or less complete. Therefore he suggests we should prevent the use of it and consider it one of the dangerous poisons. At present, the country is flooded with a poison dangerous to reason and,even life itself under various and entirely unsuspected forms in the economic use of Wood Alcohol." Wood (Methyl) alcohol being so much cheaper than the standard U. S. P. (Ethyl) is used by pharmaceutical houses for commercial reasons, its preservative properties being equally as good. If we had any authentic evidence to prove the medicinal value of alcohol, the many adulterations placed on the market would warrant us in rejecting its use for fear of injurious results.

Since the Juniors entered this O. M. C. the medical world has been astonished by discovering an epidemic of arsenical neuritis among the common laborers in and contiguous to Manchester, England. In those greal manufacturing districts, the workmen used beer in moderation. Alcoholic neuritis was of frequent occurrence, but the constant appearance of symptoms of arsenical poisoning at the same time in these patients led to an investigation by Dr. Reynolds and Prof. Dixon Mann who found the beer contaminated with arsenic. Economy in the manufacture accounted for the arsenic in the beer.

Dr. August Ford, a learned man and Prof. of Psychiatry in an asylum in Switzerland, in discussing alcohol as a cultural and race problem, says, "About three-fourths of the idiots and epileptics descend from alcoholic parents. One-third of the male inmates of asylums, one-third of the male suicides, and one-tenth of the men who die at twenty to thirty years are directly due to alcohol drinking."

Authentic statistics show that about one-half of all the criminals and three-fourths of all the crimes against the person, are people who have used alcohol to excess, which certainly shows clearly that alcohol degenerates the bodily functions especially the brain.

Ten families of drunkards produced fifty-seven children. Twelve died in infancy, thirty-six either idiotic or epileptic, misshapen or had serious nerve trouble, only nine remaining normal. Ten sober families produced sixty-one children, of whom five died in infancy and fifty remained normal, only six were somewhat undeveloped, defective or had St. Vitus dance.

In many of the proprietary remedies, substitute drinks, and common tinctures, Wood Alcohol is used extensively. Among the scientific medical men who have recently reported cases of blindness resulting from only a few drinks of preparations containing Methyl Alcohol is our own Dr. Harold Gifford.

Cocaine inebriety is even more to be dreaded than any drug now in use. So useful yet so harmful is this drug that has been in common use less than half a generation, that legislation has been invoked in many localities and certain states to restrict its sale. No other known drug is so insidious and so quickly habit forming, and none so early destructive of mentality in those who use it. The short time this drug has been used prevents our knowing its hereditary effects. In not a single recorded case of mental aberration from cocaine abuse have the intellectual powers been restored by treatment. Morphine with all its tortures and degradations does not cause irreparable injury to intelligence in its votaries. Its degenerative effects are less pronounced and much slower than with alcohol. Alcohol affects more directly the arterial system, giving results on the nervous system of its users or their immediate successors, while opium does not materially shorten life and its users may pass several generations in reaching a plane of lessened mental activity. Since the advent of coal tar preparations for medicinal purposes, its varying compounds that find endorsement by physicians prescriptions are either an adverse criticism to our superior knowledge of drugs and their effects, or clearly classes us with Dr. Jekyl and Mr. Hyde.

When in doubt as to the proximate or remote effects of any drug, your only safe course is to refrain from giving it. A sufficient number of drugs with verified physiologic and therapeutic value are available for advantageous use to the full limit of our pathologic discernment without needless experiments to gratify even commendable ambitions. You will see cases in which neuroses, functional and even organic heart-lesions, are traceable to the tobacco or cigarette habit. For these conditions you will doubtless advise removal of the cause and prescribe proper treatment. Since the carrying out of your instructions is essential for successful results, I cannot be too urgent in reminding you that example is a most potent factor in impressing people with the seriousness of your convictions.

Excessive tea drinking is fast becoming a great evil in this country. While America has for many years held the challenge cup for yacht racing with Great Britain, the latter inhabitants have consumed a larger per capita amount of tea; indeed England and Ireland have led the world as tea topers. Progressive America, however, is ambitious to excel in everything, and our statistics of 1890 showed tea im-

portations amounting to 1⅛ pounds per annum for each individual in the United States. This amount is a decided increase over the previous decade, and is greatly in advance of our per cent. of increase in population. Dr. James Wood, of the Brooklyn Central Dispensary, N. Y., in his report for 1894 said that of 1,000 patients applying there for treatment, ten per cent. gave symptoms in the general examination pointing to tea inebriation. Here was one in every ten patients in general practice in one of our large cities so addicted to the tea habit that medical aid was invoked. I cannot here consider in detail the analysis of tea, but will call your attention to three essential constituents—theine, tannic acid, and an essential oil—and some of the results they produce:

Theine affects the nervous system primarily, and the organic system secondarily. The tannic acid affects the digestive apparatus and such organs as are intimately connected with it. While the essential oil gives us the peculiar intoxication so typical of dipsomania.

The amount of theine averages about three per cent. tannic, seven to ten per cent. differing in the kind of tea; while the amount of oil is about .75 per cent. which passes off as a vapor if the tea is not drunk when hot. This is well illustrated in the frequent headaches experienced by professional tea tasters who use the infusion immediately after it is made.

The amount of infusion taken per day with impunity by tea users varies greatly with the individual. Some will be injured by one or two cups; others will use ten or twelve pints with no more serious manifestations. One ounce of tea leaves represents six to ten grains of theine.

Analysis of one hundred cases by Dr. James Wood showed the following: 69% females; 54% of all did not exceed two pints daily; 37% four pints; 10% nine pints. The infusions used were 15 to 77% strong based on the U. S. P. formula. Number nervous, 72%; in 40% constipation; 2% diarrhœa; 15% irregular. Pains in 16% were general; 10% heart; 9% back; 6% side; 7% chest; 15% irregular. Dizziness was present in 20%; faintness in 8%; gastric and intestinal indigestion, 19%; intestinal catarrh, 8%; nightmare, 5%; depression, 10%; despondent, 20%; excited, 5%; suicides, 3%; headache, 45%; rheumatism, 5%; irregular menses, 12%; palpitation, 19%; muscular tremors, 12%; anemia, 6%; dyspnœa, 5%. In additional cases carefully studied by Dr. Wood, irregular heart action hallucinations, obstinate neuralgia, anxiety, sinking sensations in the epigastrium, general weakness, excitement and mental depression were found.

Comment on such findings as these is by me unnecessary. They bear silent but impressive testimony to every thinking person. The digestive disorders are very pronounced, pains are very severe, and the constipation resulting from the tannic acid, very obdurate. Tannin, too, renders the digestive fluids inert. Theine lessens tissue changes, thus preventing elimination of carbon dioxide. Theine accelerates the heart, causing muscular tremor whichlessens inhibitory control. Imagination is more fertile, concentration of thought is lessened, frequent micturation is common, insomnia following later. The sensory system seems especially susceptible to theine. The essential oil alone is the stimulating substance in tea that produces narcotisms. It corresponds in effect to the action of alcohol in fermented or distilled drinks.

The disorders from too much tea used, are mainly functional, complete restoration following removal of the cause with rational treatment given. The remote effects of alcohol abuse are not eliminated by the treatment. The table showing sixty-nine females and thirty-one males among the hundred tea inebriates. These statistics were gleaned in a city and among the poorer classes, the men in all probability finding solace in a greater use of tobacco while the women assuage the craving for stimulants by tea. It is quite probable that the prime cause for the use of some stimulant is poor health, caused by improper food and hygiene, which calls for the physicians knowledge and effort not alone to alleviate, but certainly we of all men are the most capable of intelligent prevention. Who is he, that knowing of the great work done in Cuba by its Governor-General, Dr. Leonard B. Wood, would be too selfish to accord him rightful honor as an executive with comprehensive medical ability added. Theine and digitalis exert certain physiologic actions in common. If you have fully comprehended the proper use the digitalis, you will better understand how tea may cause functional and possibly organic derangements, The contrast between theine and caffeine is of very great interest, because so much that is called caffeine in commerce is nothing but theine.

Caffeine is found in coffee, but much that is used as coffee is really but a cheap imitation in which theine taken from old tea leaves is incorporated. Comparing the toxic effects of theine and caffeine we find:

THEINE	CAFFEINE.
Affects sensory system	Affects motor.
Produces neuralgia.	Does not.
Causes spasms.	Does not.
Causes convulsions.	Does not.
Impairs or abolishes nasal reflexes.	Does not.
Diminishes temperature	Increases temperature
Is astringent.	Is relaxing.
Is mildly diuretic.	Is powerfully so.
Causes irregular and feeble heart action.	Causes strong and regular heart action.
Causes sinking feeling in the epigastrium.	Relieves same.
Causes sick headache	Relieves same.
Opposes active nutrition	Increases nutrition and tone of the system

While they have opposing actions as indicated, they are similar in producing cerebral excitement, insomnia, hallucinations, and a soporific state following exhaustion from want of sleep. The therapeutic use of theine has never been verified. Its pernicious influence on the system has been abundantly proven, and its increasing consumption should be met by educating the people to the dangers of using it. It is one of the articles so often given to the poor by charitable institutions, because so many hot drinks can be made from a small cash outlay in tea. Those well meaning persons who make such gifts are not aware that they many times enslave those they are attempting to benefit.

Some Surgical Uses of Carbolic Acid Not Given in Text-Books of Therapeutics.

By Richard E. Lee, M. D., Clinton, N. C.

The general practitioner often finds, after he has diligently sought through his reference books, that a great many useful ideas pertaining to medicine have been left out, and it is true that many choice gems never reach the text-books at all.

After a close persual of several text-books on Therapeutics, I find that one of those gems on Carbolic Acid has been left out.

Although a great deal of space is allotted to Carbolic Acid, yet almost nothing is spoken of its use, in the strength of 95%, in conditions of severe inflammation and suppurative. Yet when used properly it gives marked and almost instant relief, and certainly shortens the course of many conditions of this kind.

In the beginning I wish to give the credit of this use of carbolic acid to Dr. S. D. Powell, of the New York Post Graduate, for it is to his excellent teaching that I first began to investigate the subject thoroughly.

In almost every condition where there is marked inflammation or suppuration, carbolic acid can be used with marked benefit.

For a general rule the following direction for using the 95% carbolic acid may be given. Any pure carbolic acid may be used. The "M. C. W." carbolic acid has always given satisfaction to me. To prepare a permanent solution from the crystals, fill the space found in the original bottle above the crystals with water, place the bottle in a saucepan of water, in the bottom of which has been placed a folded towel to prevent breakage of the bottle. Then place this over a fire so as to melt the crystals.

Many teachers recommend the addition of glycerine instead of water to keep the acid in solution, but the above method is better. The acid is now ready for use and is approximately 95%.

Now take a probe wrapped with absorbent cotton, and if the application is to be on the surface, wet the cotton with the 95% carbolic acid and apply thoroughly over the inflamed surface and to a small area of the adjacent healthy skin.

As soon as this turns white, apply a gauze sponge, soaked in 95% alcohol, over the parts where the application was made, to neutralize the excess of acid.

After this a piece of sterile gauze, soaked in a 1% solution of carbolic acid, should be applied and held in place by a bandage.

If there is a suppurating wound or abscess after they have been opened and curetted, a mop of cotton wet with 95% carbolic acid should be applied thoroughly to the abscess cavity and for a small space around its edges, and as soon as the latter turns white, the alcohol is applied to the out side.

The cavity of the wound or abscess should then be packed with a strip of gauze soaked in a 1% carbolic acid solution. I use the 1% solution for the wet dressing, because in that strength it will not cause symptoms of carbolic acid poisoning from absorption.

All of the text-books warn against the use of carbolic acid on account of causing gangrene, etc.

These unpleasant symptoms need not be found when the 95% solution is used as it prevents absorption by its local action on the tissues, while a 2 to 10% solution will be absorbed and give the symptoms of carbolic acid poisoning.

As an example of the first method given above, may be mentioned the treatment of Erysipilas.

As this article is only on treatment, the causes and symptoms of the various diseases will not be given.

When called to a case of erysipelas, whether of the face or other part of the body, the 95% carbolic acid should be thoroughly applied and this followed with 95% alcohol after the parts turn white, as described above, and then the 1% solution of carbolic acid on sterile gauze applied.

In place of the latter the surgeon may apply other remedies as Ichthyol etc., should he prefer to do so. If the inflammation is near the eye it is needless to warn the attendant to be careful and not allow the acid to get into the eye. It is well to first apply vaseline around the eye before making the application. If it is a case of phlegmonous erysipelas, the sloughing surface should be thoroughly swabbed with the 95% carbolic acid. It is marvelous how rapidly the symptoms subside after this treatment, and after 2 or 3 applications at 6 to 12 hours intervals will completely cure. Of course such remedies as are indicated should be used internally.

In cellulitis the treatment is the same as for erysipelas.

In adenitis when suppuration threatens, if 95% carbolic acid is used externally and followed with the alcohol, and at the same time 10 to 20 drops of a 2 per cent solution of carbolic acid injected into the substance of the gland, the suppuration will often be aborted. When you inject a gland pass the needle through heathy tissue at the edge and press the point of the needle into the substance of the gland and inject the solution slowly into the glandular tissue.

In boils and buboes the same treatment is indicated. In buboes this treatment should be carried out early and on several occasions it has prevented the necessity of later having to dissect out the bubo. In carbuncles after they have been opened and curetted, the strong acid should be thoroughly applied, and before this stage, if the 2 per cent. solution is injected into the carbuncle, often its course will be aborted.

In the treatment of the burns, the application of carbolic acid 95 per cent. is rapidly gaining its merited position.

Several reports of its use in extensive burns, have been made in recent medical literature. This can be used in burns of large areas as well as in small burns. After its application the pain almost disappears at once. A healthy wound is left that heals more rapidly than a burn after the old treatment. It relieves the pain by its anæsthetic effect upon the terminal nerve fibres. It combines with the albumen in the tissues and the wound is thus covered by an impermeable dressing.

At the same time the acid is not absorbed as it would be after an application of a weak solution, so there is none of the symptoms of carbolic acid poisoning. I have used this treatment in burns of small surfaces and will not hesitate to use it on large burns.

In inflammation of the breast, if 95% carbolic acid, followed by alconol, be used at the first symptoms and follow this with compresses wet with a 1% solution of the acid, it will be aborted in nearly every case. In suppurative endometritis, after curretage with a dull curette, a uterine probe, carrying a swab of cotton wet with 95% carbolic acid, should be applied to the whole surface of the endometrium, and this in turn should be followed with the alcohol.

All surgeons are familiar with the process of treating the stump of the appendix, after operation, with a drop of carbolic acid applied by means of a glass rod.

In a few cases I have used 95% carbolic acid in dressing the stump of the umbilical cord, and in every instance in which I used it, I found it to be excellent, yet the number of cases have not been large enough to be positive as to its usefulness.

As to the use of carbolic acid in the treatment of chronic leg ulcers, I will refer to an article on that subject in the February number of the Surgical clinic.

Dr. Powell has often prepared his hands for surgical operations, by first submerging them in a 95% solution of cabolic acid and following this at once wlth 95% alcohol. This leaves the hands thoroughly antiseptic and does not benumb the tactile sensibility as one would expect, from the acid. I have never tried this process, as the old method of disinfecting the operator's hands have been very satisfactory.

A Few Cases of Loss of Cornea from Neglected Dacryocystitis.

By D. C. Bryant, M. D., Omaha, Nebraska.

Dacryocystitis is so common a disease that every medical man knows its pathology and etiology and yet, in actual practice, these cases are often overlooked until too late to avoid the catastrophe which overtook the cases I am about to report. However, before beginning the history of these cases a moment's glance at the etiology and pathology of this disease may possibly be time well spent. The history of the ordinary case of dacryocystitis is something like this: A gradual diminution of the lumen of the nasal duct somewhere along its course between the lacrymal sac and the inferior meatus of the nose which results in a condition where the tears collecting in the sac are no longer carried away freely as in normal conditions or perhaps not carried away at all.

This closure or partial closure of the duct in the majority of cases is caused by the inflammatory processes extending from the nasal fossæ upward along the nasal duct, causing more or less complete occlusion in some part of its course. The tears no longer able to pass down the duct and escape in

the natural way collect and remain in the lachrymal sac finally acting as a local irritant increase the secretion of mucus from the membrane lining the tear sac. The admixture of tears and mucus soon forms a medium for the cultivation of any germs that may chance to pass from the conjunctival surface through the punctum and canaliculus into the lachrymal sac. In the great majority of cases, the first infection is from nonpyogenic germs and the result is a nonsuppurative process without endangering the cornea in the least but in many cases sooner or later pyogenic germs enter the sac already containing the proper media for the rapid propagation of this particular class of germs and a more or less active suppurative inflammation is the result.

From the moment pyogenic germs are established in the lachrymal sac, whether the inflammatory process produced by them is of a severe acute form or one of slower nature, the cornea is in danger. The slow chronic form of dacryocystitis is the most dangerous because it does not compel the patient to seek aid from his physician as does the more acute form. The danger to the cornea in cases of suppurative dacryocystitis lies in the fact that in these cases pyogenic germs are ever present to seize upon the first opportunity that may present itself to infect the cornea. As long as the anterior or epithelial layer of the cornea is unbroken pus regurgitated from the lachrymal sac can pass over it without danger to the welfare of the cornea, and this condition of affairs may and often does, exist for years and the patient go on in apparent safety but finally from some little accident the epithelial layer of the cornea is injured, broken, and immediately the army of pyogenic germs, in waiting, begins to pass through the breach and invade the deeper layers of the cornea.

The result is a suppurative keratitis which destroys the corneal tissue more or less rapidly depending upon the virulency of the invading germs. As a rule, the infection coming from the pent up pus in the lachrymal sac, is of a very virulent nature and it is not an uncommon thing to see a cornea thus attacked melt away almost like the snow before the sun. At least, the cornea In a large percent of these cases, is practically destroyed in 24 or 48 hours. The following cases illustrates very graphically the rapidity with which the destructive process goes on these cases.

Case 1.—J. H. P., laborer, age 40, while at work cutting weeds by the roadside, received a slight injury to his right eye. In moving some of the rank weeds which he had already cut, the butt end of one which had been cut diagonally across, so as to leave a sharpened end, struck him in the eye making a slight abrasion of the cornea, that is, breaking through the epithelial layer. The injury was not sufficient to stop his working the balance of the afternoon. During the night following, the eye became very painful and when morning came, he found himself as he expressed, nearly blind in that eye. He came to my office the second morning after receipt of injury at which time, the entire cornea except the extreme periphery, was opaque and in the central portion breaking down. As nothing could be done to save or restore vision in this case, and as the patient, a poor man, was anxious to get back to work, the removal of the eyeball was advised. The operation was performed the next day. This man had suffered for twenty years with what he called a weeping eye, a chronic dacryocystitis. Just how long that had been of the suppurative form, it is impossible to say; but at the first examination, the lachrymal sac was full of pus.

Case 2.—A switchman, age 26, while at work switching cars in the railroad yards a hot cinder struck his right eye and became imbedded in the cornea. The accident occurred in the forenoon and about 1 o'clock he went to the Company surgeon's office and had the cinder removed. The cinder was removed with as little damage to surrounding tissue as possible and a bandage applied. I was called to see this case some sixty hours after the injury was received and found on examination that the entire cornea was a suppurating mass. On looking for a cause for infection, the lachrymal sac was found well filled with pus, which on slight pressure, regurgitated easily into the conjunctival sac, bathing surface of cornea with pus. Further questioning elicited from the patient the fact that the patient had been troubled for several years with a "weeping eye."

In this case, the inflammatory process rapidly extended from the cornea to the deeper structure of the eye setting up a panophthalmitis. To save time and suffering, the eyeball was enucleated.

Case 3.—An engineer, age 45, while making his usual run one afternoon, having occasion to put his head out of the cab window to look ahead, he caught a hot cinder in the left eye. The cinder buried itself in the cornea so that his fireman, who attempted to could not remove it. As it was late in the evening when his train arrived in Omaha, he went home and went to bed to wait till morning, before having anything more done for his eye. The following morning he presented himself at my office giving the above history. On examining the eye quite a large break in surface of lower part

of cornea was observed. The cinder had become dislodged and had disappeared. The cornea for some distance arouad the injury was already opaque showing the rapidity with which inflammatory process was going on. Here again, pus was found in large quantities in the lachrymal sac and a little questioning brought the history of tearing and watering of this eye for fifteen or twenty years, that is, a chronic dacryocystitis had existed that length of time. In this case, the prompt and energetic use of the galvano cantery, the slitting up of the caniliculus and the oft repeated washing of both the conjunctival and lachrymal sacs prevented the extension of the inflammatory process to the deeper structures of the eye and arrested the destruction of the cornea so that, in the end, the greater portion of that membrane was saved. In this case, so much of the cornea was saved that although the resultant scaris in exactly the wrong place; still with a proper iridectomy, the eye could be made of some use to the patient, should he ever be unfortunate enough to lose his other one.

Case 4.—Farmer, age 65, in walking through his cornfield one day, he stooped down to pick up something from the ground and struck his right eye on the stub of a corn stalk that had been broken off. The blow was a severe one and the pain caused by it, lasted for a number of hours. However, after returning to the house and bathing the eye, it became easier and he thought little more about it until the next day, when the eye became so painful he was obliged to consult his family physician who recognizing the seriousness of the case advised the patient to go to the hospital where the eye could be properly cared for. The patient did not come under my care until several days had elapsed after receipt of injury. At that time, the cornea had almost entirely sloughed and a panophalmitis already begun with marked swelling of eyelids, etc. As the patient objected to the removal of his eye, the treatment of the case was a long drawn out and tedious affair. Here as in the other cases, the lachrymal and conjunctivial sacs were kept thoroughly cleansed with antiseptic lotions until finally the inflammatory process died out and patient was allowed to go home with the warning to return immediately if the other eye should show any signs of irritation.

Two months later this patient returned with a sympathetic ophthalmia in the other eye. The old shrunken stump was removed and after several months care and worry and careful treatment the inflammation in second eye was subdued and fairly good vision retained.

These cases are not reported with the view of bringing forward any new plan of treatment that will with magical touch arrest the destruction of the cornea after the pyogenic infection has once taken place, for experience has shown that the majority of these cases once fairly under way, cannot be arrested by any known means until the cornea is completely destroyed or irraparably damaged. However, the better part of all practice of medicine, *i. e.* prevention, does come iuto play here. A word of warning from the family physician to these misguided or uninformed individuals who go about from year to year carrying this menace to their comfort and happiness constantly with them would prevent at least a large percent of the disastrous results which now occur far too frequently.

Brief Notes on the Treatment of Ulcerative Tonsillitis.

By G. A. Davis. M. D., Summit Point, W. Va.

While I am well aware that there are any number of methods for treating this disease, which is commonly called putrid sore throat, I have thought that it might be of interest to describe a plan of treatment which has given excellent result in my practice.

When called to see a case of ulcerative tonsillitis I first open the bowels with calomel in $\frac{1}{6}$ grain granules and podophyllin in $\frac{1}{6}$ grain granules, repeated every two or three hours until free evacuations are obtained. I then make an application to the tonsils in the following manner: After placing a pair of long handle dressing forceps in hot water for five to ten minutes I grast a piece of absorbent cotton with them and wash the tonsils and throat well first with a warm normal salt solution, then with clear warm water, after which I roll up a piece of absorbent cotton to the size of a large nutmeg, and grasping it with the forceps saturate it with a ten per cent. solution of protargol, and thoroughly mop the tonsils and fauces. During the balance of the day until my next visit, and all the time the patlent is awake, I give the following in teaspoonful doses every two hours, Potass, chlorat, 1 drachm, tr. ferr chloridi, 1 drachm, aquæ, 8 ounces. This mixture is to be taken in water, and the mouth rinsed out directly after each dose with water in which has been dissolved a little bicarbonate of soda. After the first applicatiion of the protargol I find that the patient can swallow much better, the pain and soreness is greatly relieved, and a cure results much sooner than under the former mode of treatment.

I had a case not long ago of ulcerative

tonsillitis which I treated by the old method, using potassium chlorate, tincture of iron, and cocain to mop the throat with, and at the same time to swallow a little of it every two or three hours. I kept this up for three days and at the end of that time I could see no improvement; if anything the parts were in a worse condition than at first. I then used the treatment outlined above, and before I left the house my patient expressed himself as greatly relieved, being able to swallow with much less pain.

In the treatment of this form of tonsillitis the nitrate of silver was formerly a popular application, but aside from its disagreeable taste it frequently produces some distress, so that patients object strongly to its use. My experience has shown that protargol will do all that the nitrate of silver accomplishes in these cases without any unpleasant effects, and after the patient once observes the prompt relief which it produces he is generally anxious to have the applications repeated.

Lead Poisoning.*

By Edwin R. Maxson, M. D., A. M., LL.D., of Syracuse, N. Y.

Lead, taken internally or introduced into the system through the skin of the face, scalp, or other parts, becomes a poison, if slow, of quite certain effect.

And it appears to matter little, in what form it is introduced, when applied externally, for it is quite readilly absorbed by the skin, and by the alimentary canal through its lining, mucous membrane, when taken internally, as in the case of water coming through lead pipe. And as the particles are too large for the absorbents to take up and be carried from the system, irritation follows. And this goes on slowly, but certainly, the longer the mettle remains, for life, unless dissolved and thrown off by a remedial agent, capable of doing it, continued for a long time.

This even may become impossible, when the lead particles have remained so long in the tissues as to have become imbedded in a consequent deposition of animal tissue or matter, but little, if at all susceptible of being taken up by the lymphatics of the part, And, if susceptible of being removed, in such cases, by remedial measures, if long thus imbedded, in the brain, spine, or other vital part, there is great danger that induration, softening, or other organic irreparable change may have taken place. The use of soft water conducted through lead-pipe, is more dangerous to health, than hard water; as the soft dissolves more lead than the hard; while the hard forms a coating, which that destitute of lime cannot. Lead pipes conducting soft water, for many years, lose a large part of their weight, being dissolved or worn off by the water they conduct, as is proved by taking them up and re-weighing, and hence the danger to health and life, of drinking such water, by the lower animals, as well as mankind.

Lead thus introduced, is liable to produce lead-colic, neuralgia, paresis, paralysis; and a long train of symptoms, often regarded as obstinate incurable rheumatism, decrepitude, etc.

Such water used for washing the hands and face, baths, etc., by absorption of the lead held in solution, may have a similar effect, the skin absorbing the lead particles, as well as the mucous membrane of the alimentary canal. So may lead used as a paint by artists, painters, and all workers in lead, also exposure to the drying of newly painted rooms, the lead being introduced into the system with the inspired air, through the bronchial mucous membrane, and producing the same pernicious effects.

Hence zinc should be substituted for lead as a paint on sanitary principles, especially as it is superior to it in other respects.

When lead is used in a cosmetic to the face, or in a hair-dye, or hair-tonic to the scalp, the particles of the metal, are absorbed, by the skin of the scalp or face, endangering the brain; and the particles of lead taken in by the inspired air, through the broncial mucous membrane, endangers a general poisoning of the sytem, as well as the local. And hence it is that when thus used, we have the most fearful general and local effects, in lead-poisoning, as neuralgia, paralysis, insanity, idiocy and a long train of physical derangements, intellectual perversions, and moral terpitudes, at best, when long used.

It is well known that lead introduced into the system in these and various other ways, may produce *lead-colic*, as well as the ills here referred to, and many others. But from my observation for years, I fear that in many of the obscure cases of lead-poisoning, there is great danger of our mistaking the real cause in arriving at a diagnosis, and as a consequence fail in our efforts to cure the disease it has produced, in an insidious manner, perhaps.

If the patient has the blue streak at the base of the teeth and gums, wrist drop, frequent attacks of colic, a leaden countenance, is a worker in lead, as a painter, has used hair-dyes, or cosmetics, and we can find it out, we may usually quite readily ascertain the real cause, and prescribe understandingly. And as the lower domestic animals

* Read before the Syracuse Academy of Medicine, April 7, 1903.

are known to be as susceptible to poisoning by lead, as the human species, exposed as they are by drinking water that has passed through lead pipe; they are often thus seriously injured, if not fatally, though their symptoms may be even more obscure than in the human species, but the disease not less fatal, as I can testify.

As the *treatment* of acute and chronic lead-poisoning, attended with, preceded by, or not, lead-colic, is well understood; I will only refer in brief to the sulphate of magnesia, for the attendant constipation, iodide of potassium to remove the lead, dry or wet cups along the spine, to relieve the tendency to cerebro-spinal congestion, a largely milk diet, for all persons exposed to or affected by lead; electricity, local and general, with nux-vomica, to prevent or relieve paralysis, or a paretic or paralytic tendency, and in debilitated conditions, iron, the ammoniated citrate or dialized, usually fulfilling the indications, as they may arise, so well understood; and will pass on to elucidate, as best I can, the *obscurity* sometimes attending plumbism in the lower domestic animals, as well as in the human species, by relating two or three cases, especially pertinent, among the many I have observed and treated, as they have appeared to me, shrouded in the mysteries of obscurity, deception and sometimes fraudulent representations, perhaps, and first of the lower domestic animals, a case or two.

Many years ago in passing a dairy-farm, on which there were kept a herd of perhaps twenty or more swine, the proprietor asked me to look at his hogs, many of them being very sick, dead or dying. They were in a pasture one side of which was a large creek, along which grew the conium maculatum, no other poisonous vegetable, so far as known, which the gentleman farmer spoke of, as a possible cause of the disease, in answer to my inquiry, for any known cause. Some of them were dead or dying; most of them, not dead, appeared to be quite sick, a part of them were semi-comatose, others apparently undergoing great pain, and all the sick and dead ones tympanitic. At the end of the pasture was his cheese-house near which the hogs were fed, the *whey* (which is the serum of the milk separated in cheese making), after it had become sour, in long troughs, the whey running into them from a reservoir, about six feet above them, as I remember; and for only about two weeks the sour whey had been pumped up to the reservoir by a small brass pump, through about six feet of lead pipe, and as all the symptoms were of acute lead-poisoning, I had ascertained the cause; and the pump and the pipe being removed, most of the hogs, not dead, made a tolerable recovery, fattened fairly well, and at my request, when butchered, two or three months later, I was allowed to examine the intestines and found the small ones contracted, at frequent points, so as barely to allow the little finger to pass, and between these points of contraction, distended into bladder-like pouches, some of them as large or larger than the doubled fist.

Another dairy farmer, called on me, passing, in relation to the sickness of a cow, with symptoms which suggested to me plumbism, and, on inquiry it was ascertained that the cow, a day or two before, had eaten hay or straw from a wagon on which newly mixed white lead paint had been accidentally spilt. These two cases from the lower animals, were very instructive ones to me, at the time. And I may add here, that I have since examined the intestines of a man, fifty or over, who had drank water, coming a few rods through lead pipe, perhaps five or six years; the small intestines being alternately contracted and dilated, as in the swine.

A clergyman from out of town was referred to me by a resident clergyman professor, some years ago, who had been suffering from many of the symptoms of lead-poisoning, as I remember, three or four years, disqualifying him for pastoral service, and his case had been diagnosed as "dilatation of the blood vessels of the brain," with which diagnosis I was, for once, inclined to concur.

But as he had rather failed under the treatment he had received, and as no cause had been assigned, his habits having been scrupulously correct, with no known exposure to lead or mercury, as he claimed, I treated him a year, I think, for plumbism, with little or no improvement, when he claimed to be loosing the use of his legs, which I thought was rather apparent. Just at that time on pressing him as usual, on the possibility of his having had some exposure to lead, and relating to him that I just had a case involving one hand and arm that had been treated at another town for rheumatism, but which I found on close inquiry had been produced by lead in a liniment which he had previously applied to a horse's leg by that hand; his brother who brought him here, being a horse doctor, and stating on my inquiring that the linament contained acetate of lead. My declining patient, surprised, asked at once, can lead applied externally cause lead poisoning? And on my emphatic affirmative answer he replied that he had applied acetate of lead, dissolved in alcohol for years for "sweating of his feet."

He had thus been unwittingly absorbing lead through his feet a little faster than I

had got it out of him evidently. I then continued essentially the same treatment another year with steady improvement, and having then become able to assume the pastoral charge of a church, warning him to avoid any exposure to lead and especially to undried lead paint, suspended treatment. But within a year or so, on his church edifice and parsonage having a coat of white lead paint applied, there was a slight return of his former symptoms. for which I sent him the same medicines I had before given him, as I remember, for about six months with prompt relief, and so far as I know permanent, as he has, to my knowledge, had the pastorate of several churches since that time.

Such is the obscurity of many cases of lead poisoning, however, and especially chronic ones, it is my opinion, from careful observation that a large majority of them are ascribed to other causes, and hence the treatment is a failure.

I confess to have prescribed for a very brief period for two cases in which the symptoms of plumbism were some of them present, but I could not on account of their standing allow myself to suspect, even the possibility of their using hair-dyes containing lead, and yet one of them passing from under my observation evidently died later from lead in hair-dyes, and the other becoming insane, I charged with it, ascertained the fact, and after two years' treatment for lead poisoning, reason was restored and fair health to old age secured.

And finally it is still further my opinion, that if we could all diagnose, or ascertain the cause and directly charge to lead one-half of the ill effects it is now producing to health and indirectly to intellect and morals, it would be largely abandoned as a medicine, also as a paint, and zinc which is better substituted, even by the artists, and that very few persons with intelligence and brains enough to render them useful in the world, would degrade themselves physicially, intellectually and morally by the use of cosmetics or hair-dyes containing lead, or expose themselves unnecessarily to a poison so liable to produce such pernicious effects. God forbid!

A Supplementary Note. (*Added Later.*)

"It is enough, that the human form Divine" has been shattered and bruised by disobedience of the laws of life and health during the past 5,905 years, engendering diseases, and shortening human life from nearly a thousand years to an average of less than 50. And while these imprudencies have been legion, gluttony, drunkenness, licentiousness, opium and tobacco have doubtless been the principal, deforming more or less, even physically, our God given comeliness But to attempt to restore this lost native beauty by cosmetics or hair-dyes containing lead, taking into account the danger of them to health, intellect, morals and life even; might be suicidal, and should not be thought of, but rather by a strict observance of the laws of life and health, let beauty return with intellectual brightness and moral purity, as a consequence.

April 10, 1903.
818 Madison Street.

Ovarian Tumors.

By W. P. Whittington, M. D., 25 Vance St., Asheville, N. C.

Ovarian Tumors, may be solid or cystic. The solid tumors of the ovary, are the fibroma, myoma, sarcoma, and carsinoma. These are usually pedunculated, lay entirely outside the broad ligament, and are connected to the uterus by a pedicle made up of oviduct, ovarian ligament, and ovarian vessels. Ovarian fibroids are identical with similar tumors of other organs, are rare and usually small. Myomata are more common than fibromata, and derive their muscular fibers from the ovary, and ovarian ligaments. Sarcomata are not of frequent occurrence, and the spindle-cell is more frequent than the round-cell. They are of rapid growth, speedy degeneration, and soon metastate to other organs of the body, and usually affect both ovaries simultaneously.

Carcinoma is of rare occurrence as a primary disease, and usually affects both ovaries. It is more often found as a secondary complication of carcinoma of neighboring organs.

Cyst of the ovary are doubtless developed from the Graaffian follicles, which have failed to rupture and discharge their contents. The walls of the follicles being toughened by inflammation or some other cause, become retention cysts which may increase to enormous size.

These tumors may be composed of one or many cysts according to the number of follicles involved in the primary cause. A tumor, which when small was composed of many cysts, when large may become monocystic on account of the partition walls giving way from distention and rupture, or atrophy from pressure.

Some ovarian cysts are lined with skin, and mucous membrane, and contain teeth, hair, bones, horn, brain and other dermoid appendages; and constitute the true dermoid cyst. In many cases the germinal epithelium of the Graaffian follicles go to form glandular structure, and the tumor be

comes a so-called glandular cyst-adenoma, which is one of the most common forms of ovarian cyst. These may grow to an enormous size, and sometimes become malignant.

Ovarian cyst proper may spring either from the oophoron, or paroophoron, but we often have besides, a tumor springing from the parovarium which is a dilated verticle tubuli of the parovarim. These tumors are usually monocystic, and may grow to large size. Their pedicle is made up of the oviduct and vessels with perhaps fibers from the broad ligament. Their walls are usually thin, when the tumors are small, but become thick and opake as they increase in size. The outer surface is usually smooth, and may take on a conjunctival hue.

Besides the oophorotic, paroophorotic and parovarium cysts we sometimes have cysts formed by hydrocele of the tube. These are more visibly separated from the ovary, and are easily diagnosed.

Having given a hurried classification of ovarian tumors, I wish to report four cases and show you an interesting specimen.

Case 1.—Miss M., age 43 years, had had a tumor for eighteen years. She was opened by Dr. Beaty of Rome, Ga., sixteen years before. He found some adhesions and closed the abdomen without removing the tumor, and told the patient and friends that the tumor could not be safely removed. Sixteen years later, and three years ago now, I was asked by her brother-in-law, (who is a physician) to tap her, because she had become so feeble and emaciated that she could hardly carry her tumor. In company with Dr. Fletcher and Dr. Dean of Spartanburg, I tapped the patient and relieved her of eight and one-fourth gallons of fluid by actual mearurement. The patient would not have weighed more than seventy-five pounds after the operation.

I tapped her three times afterward, taking four, three and one-half, and three gallons respectively.

She died of exhaustion, and at the post mortem, I found very few adhesions near the site of Beaty's operation, and a pedicle not much larger than my thumb. There was an opening in the wall of the tumor about one by two inches and there was, of course, more or less ascitic fluid in that drawn off.

Case 2.—Mrs. E. was a sister to No. 1, she was present during the treatment and at the death of her sister. She had a tumor of perhaps some ten or fifteen pounds weight. I strongly advised her to have the tumor removed, but she declined.

About one year later I was called to see her, and found her greatly enlarged, and suffering from anæmia, pressure, and exhaustion. I tapped her and relieved the pressure and some of the symptoms by drawing off three gallons of fluid but she soon died from exhaustion. There was no post mortem.

Case 3.—Mrs. M., married, age forty-one years, and mother of four children. Had some bladder trouble, with difficulty of passing urine four years before operation. Short time afterward began to grow stouter. Later noticed enlargement of abdomen which was central and uniform like pregnancy. Finally consulted a physician who told her she had ascitis. Consulted me in November, 1901. I diagnosed ovarian tumor. On December 27th, 1901, at the Mission Hospital, assisted by Drs. Fletcher, McBrayer, Purefoy and Powell, I removed a tumor weighing twenty-three pounds, it seemed to be a parovarian tumor of left side. Pedicle was formed of left oviduct and vessels, and had its main insertion and blood supply at left horn of uterus. The ovary was not closely connected. There were many vascular attachments to the peritonæum, and a broad flat attachment to the bladder. There was considerable capillary hemorrhage, which we thought was controlled, but which continued after the closure of the wound to such an extent that the patient suffered from collapse. She however, revived under treatment and recovered with a clot abscess, complicating convalescence. She is now strong and in fine health.

Case 4.—Miss W., age 30 years. About five years ago began to have trouble with menses. Had amenorrhea for ten months, then metroiragia for about one year, and menorrhagia ever since. Three years ago she had apparently some ascitic collection and was anæmic. Under general treatment seemed to improve in general health, but eighteen months ago began to notice a rather symmetrical enlargement of the abdomen. About six months ago Dr. Purefoy was called and diagnosed ovarian tumor.

On the 13th day of December last, by the courtesy of Dr. Purefoy and assisted by Drs. Millender and D. E. Sevier, I removed the tumor which you see, which also weighs twenty-three pounds.

This tumor sprang from the right ovary, or parovarium, and had a wide and vasculor attachment along the upper edge of the broad ligament, and a thick pedicle attached to the right horn of the uterus. The ovary and fimbria you will observe were carried along as the tumor enlarged, and are now seen attached to its side The attachment between the tumor and the broad ligament was very thin and readily stripped off without ligating. There were

numerous attachments to the peritonæum, some of which required ligating, while many were broken by passing the fingers between the tumor and abdominal wall. You will see one broad band of omentum which was lagated and cut away.

This tumor has the appearance or a multilicular cyst-adenoma, but may be a parovarian cyst, of a multilocular character. The patient never had a bad symptom, and is now at home, well.

The main point I want to emphasize in the report of these cases is the necessity of early operation if it can be had, but at any rate, an operation at any time, while the patient has vitality enough remaining. I also want to emphasize the fact that in a sense all ovarian tumors are malignant, that is, they will sooner or later destroy the patient. The two cases that were neglected died, those operated on, are well.

Syphilitic Manifestations in the Mouth.

By William F. Bernart, of Hot Springs, Ark.

All lesions of the mucous membranes of the mouth in reference to their etiology, come distinctly under two headings, namely: primary and secondary. The primary form the causative factor is either mechanical, chemical thermal, or bacterial; in the secondary form the inflammation is symptomatic, attending infectious diseases, gastric or intestinal disorders, extension from adjacent inflamed tissues, unhygienic surroundings, poor food, general debility, etc., so it becomes evident that to deal intelligently with the mouth lesions of syphilis, other similar affections must be thoroughly understood no matter how disparate the cause.

In beginning with the primary chancre, it is a known fact that extragenital sores are difficult to diagnose. The chancroid can practically be eliminated in considering lesions in the mouth, cases are on record of it having attacked the mucous membranes of these parts, but then its occurrence is so seldom as compared to chancre that it is of slight value to discuss. Excluding the outer margin of the lips, the tongue is probably the favorite seat of the chancre: this is due to the greater exposure of this organ. Chancre of the gums, buccal mucous membranes, and palate does occur when either of these parts presents an accessible portal for the entrance of the specific virus but it generally owes its cause to direct inoculation by some contaminated instrument.

Chancre of the tongue usually involves the anterior one half of the organ and most frequently the dorsum, side or top.

Of the two varieties found, the erosive and ulcerative, the former is the more common and presents an oval or rounded superficial lesion simulating closely the genital sore. The surface is usually smooth and covered by a grayish pseudo-membrane, while its base consists of a parchment-like induration. In size it varies, but generally averages about 1 centimeter in diameter. The ulcerative form exhibits deeper ulceration attaining twice the size of the erosive variety, has sloping edges and a thick induration. Lingual chancres simulate nonspecific sores and an early diagnosis is of importance as the transmission of the disease to healthy individual may result. The differential diagnosis consists principally in eliminating ulcerative and gangrenous stomatitis; simple, tubercular and cancerous ulcers, and tumors, namely: epithelioma, sarcoma, papiloma, cystoma, fibroma, adinoma and angioma. The following statistics as tabulated by Roger Williams,[1] show the relative frequency of tumors of the tongue: out of 13,284 neoplasm treated in two London hospitals during a prolonged period, 880 or 6.3 per cent, originated in the tongue.

Fournier[2] in referring to extragenital chancres found from 8 to 10 among 100 chancres, and that out of 481 extragenital sores he found 365 or 75.8 per cent. occurring upon some portion of the skin and mucous membrane of the head. Even figuring that lingual chancres occur in only one percent of such cases, and considering the difficulty of making an accurate diagnosis, there exists a wide field for error until some pathagnomonic sympton presents itself. During the period of expectancy the patient must be supported, the risk of transmission decreased and the extension and character of the growth and the effects of local treatment carefully observed.

The peculiar susceptibility of the gums to ulcerate makes the ulcerative form of chancre the most common in this location. The chancre and surrounding inflamed tissue usually covers a large surface and the destruction of tissue is well marked. The diagnosis should be withheld because differentiation between chancre and ulcerative gingivitis due to other causes is practically impossible unless the chain of evidence is perfect or unless some other manifestations eradicate all doubt. Infection along the gums is usually due to some direct injury. One of my patients in clinical practice claimed to have had the chancre on the upper gum above the bicupsid teeth. Retraction of the gum was still present some three

1 Sajous's Annual, 1900, Vol. VI, page 413.

2 Journal de Med. et Chir.: Jour. Cut. and Genito Urin. Dis., Aug., '99; Sajous's Annual, 1900, Vol. VI page 366.

or four months after the first appearance of the sore.

Chancre of the buccal mucous membranes and inner surfaces of the lips are not so numerous, but do occur in cases presenting, under favorable conditions, a focus for infection. When the origin of the chancre is distinctively on the lip, extension into the mouth frequently takes place. Any sore with ragged edge and ulcerated base, with or without induration, when situated in the mouth, especially in the adult, should be looked upon with suspicion. Its gradual development from an insignificant little spot, its extension under local treatment and beginning glandular enlargement are sufficient signs to justify the beginning of an antisyphilitic treatment, providing it is unwise to await the development of the cutaneous rash. The glands first to become enlarged, depend upon the location of the chancre. It is therefore very important for the physician dealing with these cases to possess a knowledge of the relation of the respective groups of glands to the periphery. Sores occurring in the following places will first involve the corresponding glands: Tongue, anterior portion suprahyoid and submaxillary glands; posterior portion upper set of deep cervical glands, first noticed just behind the symphysis of the lower jaw. Gums of lower jaw: submaxillary glands. Lower lip: submaxillary and suprahyoid glands. Buccal cavity: submaxillary and upper set of deep cervical glands. Upper jaw, upper lip, and palate—upper set of deep cervical glands.

Considering the enormous number of cases of "innocent syphilis" aside from martial and hereditary factors, too much stress cannot be laid upon the importance of protecting the general public against infection from cases where the diagnosis is as obscure as it is in most cases of chancre in the mouth. Upon the appearance of a genital sore, suspicion is aroused immediately and all necessary precautionary instructions are given and insisted upon until the diagnosis is certified: but, in the case of chancre in the mouth where the discharge is violent poison from the start, neglect is too frequently the cause of suffering in an innocent individual. The two following cases speak plainly for themselves: First, a young girl, aged nine years contracted syphilis from kissing her brothr who at that time had an insignificant sore on the lower lip and who was given an astringent wash and no instructions of precaution by his physician; second, girl eleven years of age contracted syphilis from the use of a spoon at a soda water fountain. A young man from the immediate vicinity and a frequent visitor at this place was at that time suffering with a chancre of the tongue. Could glean nothing about his treatment and medical advice. In both these young girls, the chancre (erosive variety) appeared upon the tongue. Similar cases are of frequent occurrence and until some measure is enforced so as to protect the community just so long will the physician be compelled to lend a guiding hand and portray the danger for others to his patient.

The differentiation of sores in the mouth, as before stated, is extremely difficult and even with a most convincing history, the constitutional symptoms are necessary to verify the diagnosis of syphilis. In the infant, the chancre is usually derived through nursing, frequently from kissing, and from contaminated toys, etc. Fournier[3] in his statistics of forty cases shows the following sources of infection: The source of infection was the parents in nineteen cases; nurses in eight, servants in four, sexual contact in four, vaccination in two, other children in two, a physician in one. The ages at which the disease was acquired in this series of cases was as follows: During the first year, nineteen; during the second year, ten; from the fifth to the fourteenth years, six. The primary sore being present at the site of infection which is most frequently the lips, the mouth or some part of the face. The frequency of stomatitis in its various forms in the infant obscures the diagnosis at first, but the failure of control by local treatment, the beginning of glandular involvement and a carefully elicitated history will usually complete the clinical evidence. The possibility of syphilis should be kept in mind in all sores of insidious onset without any tangible cause and occurring from infancy up to forty years of age.

The previous mentioned diseases most frequently confounded with chancre present the following characteristics. Ulcerative stomatitis usually developes in the gum, above the labio-gingival sulcus, about the lower incissors, and occurs only where there are teeth. The affected area is first red and very sensitive and soon followed by a deep pus secretiug ulcer having a red areola surrounded by an edematous zone. It is usually confined to the gums except in very severe cases when occasionally the mucous membrane of the cheek or lid opposite the sore also ulcerates. Vomiting, diarrhea and marked fever are usually present, swelling of the tongue, enlargement of the sub-maxillary glands, and occasionally an exanthematous eruption is observed. Among the etiological factors are carious teeth, insufficient care of the mouth, infec-

3 Infancy and Childhood, Holt, page 1,053.

tious diseases, scurvey, lead and phosphorous poisoning, and a supposed specific micro-organism,[4] as yet not positively known. Its rapid development, marked constitutional symptoms, disappearance under local treatment and eradication of the cause, differentiate it from chancre. It usually occurs in children from two to five years old, appears as a small nodule either on the gum or the cheek and generally painless. There is marked diarrhea, fever, foul breath, and the sub-maxillary and cervical glands soon become enlarged. Usually occurs in debilitated children. Differentiated from chancre by its rapid course and violent systemic manifestations and the glandular enlargement. Simple ulcer, especially of the tongue may be confounded with chancre. It is usually caused by traumatism or a carious tooth. It presents no induration and upon removal of cause and under simple remedial measures it soon disappears. Tubercular ulcers usually occur as a single lesion, often of a yellow color and closely resembling a gumma, and generally an accompaniment of tuberculosis in another region. The little yellow dots at the base of a tubercular ulcer assist in the diagnosis and the finding of the tubercle bacillus verifies it positively. Cancerous ulcers are irregular in their growth, presenting an angry and ragged appearance and bleed easily upon the slightest cause, the latter is a diagnostic feature to be found in no other variety of ulceration of the tongue. The surrounding glands gradually become enlarged and the disease seldom occurs before the age of forty years. It is frequently preceded by leukoplakia.

Among the secondary lesions of syphilis found in the mouth there appears first a slight infiltration of the soft palate and fauces, in many cases, even before the roseola. Frequently the mucous patch also makes its appearance before the skin eruptions and taking it all in all, it can be considered as being one of the most constant symptoms of the early secondary stage. These milky or grayish colored patches are slightly elevated and sharply outlined and have much the appearance as if the mucous membrane had been touched with a strong solution or stick of nitrate of silver. Their diagnosis is simple when given the history of the primary lesion or when accompanied by general glandular enlargement and lesions on some other part of the body. When found upon the tongue are often accompanied with erosions and fissures which are quite painful; but otherwise do not present any marked subjective symptoms unless irritated. Non-specific lesions, simulating the mucous patch, due to local irritation, infectious fevers, or as symptoms to some disturbance of the alimentary tract can be differentiated by their history and the ease with which they disappear under local treatment. Cases do occur in which syphilis is suspected and the appearance of a mucous lesion does not assist in the diagnosis.

Leukoplakia occasionally resembles the mucous patch; it is a comparatively rare affection and occurs as a blueish white glistening, smooth irregular shaped patch upon the mucous membrane. It is due to smoking, syphilis, stomachic or intestinal catarrh, diabetes, psoriasis, lithemia, nervous influences and sometimes arises without any assignable cause. Subjective symptoms are variable. It is resisting to treatment, recurrence being the rule; while the mucous patch due to syphilis is soon controlled by proper medication.

Tertiary lesions are recognized by their previous history but principally by their disappearance under vigorous doses of the iodides. The specialist in nose and throat work has within his power the diagnosis of many cases of tertiary syphilis which otherwise would probably have resulted in perforation of the palate and in that way making it a lesion in the mouth. Gumma of the tongue are most liable to be confounded with cancer: this is greatly due to their appearance later in life. A cancerous ulcer is generally single and located on the sides of the tongue while a syphilitic manifestation is usually found at the tip and very frequently multiple. The syphilitic ulcer is usually preceded by an induration and accompanied by furrows and fissures: in cancer the ulceration precedes the induration and furrows and fissures do not occur. A tubercular ulcer is single and void of induration. Sarcoma of the tongue is extremely rare, a "test incision" and microscopical examination will in most cases determine positively the character of the growth. When impossible to make a diagnosis in this way a vigorous anti-syphilitic treatment is the only resource.

218 Central Avenue.

4 Sajous's Annual, Vol. V., 1900, page 53.

Oil of Yellow Pine.

By J. D. MacRae, M. D., Fayetteville, N. C.

This product is obtained from the dead wood of the Yellow Pine by a process of fractional distillation in which the heat used is not sufficient to char the wood. In fractionating, many products are given off, among them is an oleo-resin which is re-distilled, and from this re-distillation we get the oil in which we are interested. On account of the low temperatures used in ex-

tracting this product, the oil of yellow pine is not contaminated with wood acids nor creosotes. In this partcular it is unique among pine droducts.

The oil of yellow pine is amber colored. Specific gravity, .945, odor and taste characteristic of pine wood. When rubbed between the fingers it gives a smooth, oily feel, evaporates quickly, leaving no stickiness nor residue. Applied to the tongue and lips it produces a burning sensation quickly giving place to numbness, almost anæsthesia. It mixes well with alcohol, chloroform and ether and some oils; is a powerful solvent of gums and resins.

Applied to the skin there is absorption without irritation, to mucous membranes there is contraction of small blood vessels and anæsthesia. It is styptic and powerfully germicidal; has power to relieve the pain of burns, cuts and abrasions, as well as to destroy and prevent septic processes; stimulates healthy granulations in chronic ulcers, and relieves the itching of many skin affections. Internally, large doses have not been given, but small doses frequently administered, have relieved diarrhœa and benefited catarrhal bronchitis. Inhalation of the vaporized oil at first stimulates, then checks the secretion of mucous. It is probably excreted by the bowels, kidneys and lungs, modifying the excretions of these organs to some extent.

Therapeutically, the oil of yellow pine has a most useful field in the treatment of skin diseases, especially chronic, scaley eruptions, and those caused by parasites. It is an excellent germicide. In acute skin troubles, its anodyne, styptic and anti-septic properties make it valuable. It may be applied alone or in combination with most all of the remedies used for this class of ailments.

In dressing burns with gauze wet with the oil, pain is instantly relieved, and if the application is kept up, granulating and skin formation (according to the depth of the burn) takes place without the occurrence of pus. As a surgical dressing for primary wounds, or where pus is present, steril gauze saturated with oil of yellow pine compares favorably with any other medicated gauze, it being perfectly antiseptic, much easier to remove because it keeps the tissues softer and cleaner than a dry dressing. There is no danger from systemic absorption and poisoning, and its odor is pleasant compared with carbolic acid or iodoform.

By reason of its characteristic properties, catarrhal conditions of the air passages are helped by inhalation of the vaporized oil of yellow pine, or by the use of the oil dissolved in liquid vaseline and applied with an atomizer.

Internally, its uses are yet to be determined in large measure, but the possibilities are great.

Since writing the above, the oil of yellow pine has been put on sale as "Astyptodyne," and I have received the following report of a bacteriological examination of it giving the following results:

1. 50 cc. of peptonized beef broth sterile in sterile flsk, inoculated with colony 15 (colo bacillus), One cc. of astyptodyne added and put in incubator over night. In the morning a culture was made, 4 loops to peptonized beef broth tube — no growth.

2. 50 cc. of peptonized beef broth was placed in a small sterile flask and inoculated with colony 15. Placed in incubator over night causing a heavy growth. One cc. of astyptodyne was then added and allowed to stand 7 hours when a culture was made, (4 loops to peptonized beef broth tube) — no growth.

3. 50 cc. peptonized beef broth with 24 hours growth of colony 15 was treated with 0.5 cc. of astyptodyne.

1 hour culture—four loops——growth.
2½ hours culture—four loops—no growth.
19 hours culture—four loops—no growth.

4. Same as 3 except that only 0.25 cc. were used. Results same as in No. 3.

These data show astyptodyne to be an excellent germicide and antiseptic.

Food in Tubercular Cases.*

By Dr. Chas. S. Jordan, Asheville, N. C.

Mr. President and Gentlemen, of the Buncombe County Medical Society:

It is with some trepidation that I read a paper whose title is Food in Tubercular Cases, but as we all know from long experience, that in tubercular cases of all kinds our key note is nutrition, for in no set of cases is the demand so great or so clear, as in the tubercular.

Of course, along with food goes fresh air, rest, and proper medication, but in watching cases here, not in sanatoria, but in our boarding houses where the large majority of such patients are placed, is what I would speak of.

As we all know, in tuberculosis the range of diet is largest of any other disease.

* Read before the Buncombe County Medical Society.

The wishes of our patients in this respect can be allowed larger lattitude, in fact we can allow them ordinarily a free will along this line. In no disease do we find such fickleness of appetite. It seems Nature was a little off when she let man fall heir to a trouble whose first need to combat was nourishment; at the same time she couples with it an almost complete distaste for food. Of course this does not apply to insipient cases, for there oftimes we find the normal, healthy appetite, but later it taxes one to the limit to find something pleasing, digestible and nourishing. 'Tis easy work on the doctors' part to give a printed menu of things to select from, but 'tis another thing to get our patients to eat it. They demand a greater variety, more change in style of cooking, more daintiness in service, than any class of patients we treat. They seldom complain of food for they care so little for it, what is taken is as a rule forced and yet nutrition is what they want. They have to be coaxed, persuaded, and even compelled at times to take a necessary amount of nourishment.

We have as a rule in the large majority of cases a far larger digestion than appetite, and with a condition like this, a little forced feeding—or stuffing—at times will bring very happy results. In a great many of cases we find absolute anorexia, hyperacidity and almost total lack of gastric secretion. With this class feeding becomes a fine art.

With an ordinary case there should be your three regular meals daily, with half meals or lunches in between. To begin a day, say at seven-thirty o'clock, serve first, while patient is in bed, half teacup of water hot enough to sip slowly followed by a small cup of coffee or cocoa. Then at nine o'clock the regular breakfast; fruit—preferably grape fruit, oranges or grapes—cereal, plenty of cream, buttered toast, eggs and steak. At eleven o'clock a cup of bullion with toasted crackers. At one o'clock, dinner, (in this making your heaviest meal come in middle of the day, and giving the digestion its best chance) Soup, rare roast beef or mutton, vegetables, plenty of butter with bread, dessert and fruit. At three o'clock a glass composed of one teaspoonful of Bullion Maggi with cracked ice and seltzer, for as a rule this is the beginning of your high fever time, and nothing is more refreshing or bracing than the above. At five o'clock two or three tablespoons of cream whipped or frothed up with carbonated Vichy. At six o'clock, supper, being made as nourishing and at the same time as light as possible, a cup of cocoa with rich cream, soft boiled eggs, chicken and toast. At eight o'clock a bowl of rich milk and crackers.

This completes the day's work, and yet in addition to the above outline there are many dainty dishes omitted, for with clam bullion, beef bullion, grape juice, bovinine, eggs and sherry, and the many patent foods, our supply seems endless.

I have left unmentioned the fresh beef blood. In this we have a staff to lean on. Whereas 'tis not palatable and pleasing, yet in many cases the effect is great. I have also omitted Cod Liver Oil and stimulants, for they really come under the head of medication, and yet if you will pardon me mentioning it, that whereas a large number of patients do not bear stimulants well, and others not at all, yet at times we find that in some cases a judicious amount before a meal acts as so much food and is well borne and assimulated perfectly. Of all stimulants whiskey is best, and of all whiskeys old corn is best. For some peculiar reason it tends to soften the cough, stimulate bronchial secretion, more easily borne by the stomach and works less harm to liver and spleen.

The above, gentlemen, is a summary that will apply to cases in general, but there are others that require special feeding, special medication and special attention. For those each has its individual peculiarities and the needs met only as the occasion arises.

February 16th, 1903.

Discussion.

Dr. Dunn :—Nutrition is you might say, the sine qua non of the treatment of tuberculosis. If we cannot bring our patient to the proper state of nutrition all our therapeutic efforts are in vain. We must not only maintain the physiological balance but a slight *plus*. The digestive apparatus of the patient demands our most careful consideration; the treatment of phthisis frequently resolving itself into the treatment of this aspect of the disease; the skill of the physician in treating the alimentary disturbances not infrequently being a measure of his ability to successfully treat phthisis.

Dettweiler says that the physician should be in absolute control of kitchen and cellar. Choice and preparation of food usually receives attention from all physicians, but the serving of food is very badly neglected. I believe that the proper serving has much to do with successful dietary of the consumptive; too often are our patients' appetites ruined by a disgusting service; daintily served dishes are excellent appetizers.

Do not believe in routine frequent feed-

ing of patients; stomach should have occasional chance to rest and recuperate. Milk is an important part of diet, but much abused; mistake to tell our patients to drink all the milk they can, two to three pints in 24 hours where solid food is taken at regular meal time is enough; too much fluid interferes with both gastric and intestinal functions. Milk should not be taken within one hour of meal time—patient should not go to table with partially filled and digesting stomach. I know of no diet for the consumptive with a reasonably good alimentary tract—a good general diet of properly proportioned proteids and carbohydrates with fats in excess. The patient should be encouraged to eat reasonably large quantities of food, but we should guard against over-feeding. Secondary decline in our patients not seldom due to over-feeding.

Dr. Reynolds:—"I don't see that I can add anything to the paper and the thorough discussion of it, except I heartily agree with all, and say that food, of course, is first and foremost in the treatment of tuberculosis, without which they would all die; but I would like to take issue with one gentleman, Dr. Burroughs, and coincide with the author's paper, Dr. Jordan, in giving a hot drink in the morning, whether it be water, or preferably milk, for two reasons. One reason that when the patient arises first he has difficulty in throwing off the accumulated secretations. This hot drink will certainly soften and give the patient a great deal of comfort and take away the nauseating effect. He will lose his appetite certainly at breakfast when the heat of the meal begins to act upon the bronchial tubes if the hot water is not given.

Second in giving hot water, preferably in this instance early in the morning, you will stimulate the stomach, wash out the mucus that has accumulated there during the evening. Hot water will prepare the stomach for its morning breakfast. It is a great adjunct. The stomach being prepared for the breakfast. I believe, of course, that any man in handling tubercular patients has to specialize and select particularly his cases individually from other cases in the matter of feeding, as well as the matter of medicines, and this or that or the other treatment should be selected, and put on the proper food, and the food the patient himself will tolerate best, and I believe if you will relieve the idiosyncracies that arises in peculiar cases that we will soon get up a toleration for food, and we will be able to give, as Dr. Burrough calls it, forced feeding. Many patients live that would have died from starvation rather than lack of nourishment."

Dr. Sawyer:—I thoroughly agree with Dr. Reynolds about water, and he has certainly explained the exact nature of the way it acts, but I prefer hot water instead of hot milk, because I do not like to give hot milk or any milk before meals, in fact I do not like to give very much milk, and not so much during the course of the day because I have had so many who were unfortunately made bilious by the over use of milk. This, of course, is a relative turn, but they did get bilious from the use of sweet milk. A great many more could stand butter milk and cream than sweet milk, and the same is true of cooked eggs, though I have not found it so with the raw, cooked, fried and soft boiled do not agree. Soft boiled and especially raw, an hour or two after meals, with a little sherry is a most excellent adjutant to the nutrition. Another thing that Dr. Burroughs brought out is, I may have misunderstood him, was in saying that he gave a large dinner, a large meal at dinner time, I suppose he means two or three o'clock. The temperature is going up and it is very wrong to give a heavy meal just as the temperature is going up, because that will assist it materially but you give a large dinner at twelve, then after the temperature is gone down in the afternoon if the patient can stand it you can give a large supper, and I find they can take that better than a larger meal in the afternoon. I believe in giving a larger breakfast at 9 or 10 o'clock with a small one to start with. Dr. Burroughs made another point. A great deal of butter with meat say with steak—broiled. I find so many coming here eating fried dishes, steak, oysters and different kinds of indigestible things like that. They have to be all cut off. Very few can stand it. Broiled steak they can stand very nicely. It is nutritious, and does them a lot of good. The fats as Dr. Dunn says are very important, and butter and cream are the two most satisfactory ways of giving fats outside of olive oil and cod liver oil. I find a great many who can't take cod liver oil, can take olive oil very satisfactorily. I think that Dr. Dunn is right in that all patients should have a general nutritious diet, and should embrace all the elements of fat, all the elements that go to build up tissues.

I cannot agree with those who want to over feed the patient because I have never been able to do it without starting up some trouble. The stomach goes back on them or something happens that you have to cut them down. So that I could not advise the use of over feeding except in special cases—cases that have strong stomachs and can stand it. The great majority of tubercu-

losis have weak stomachs and cannot stand it.

Dr. Cotton: "I agree with the other gentlemen that hot water is a good thing before breakfast, but I believe a half cup is much too little. It thoroughly washes out the stomach, and the heat stimulates the digestion so we have the digestive ferments there to take care of the breakfast when given. There is another thing in the way of food that I have found very satisfactory, and if you will pardon me I will mention it. It is relative to that class of cases where the digestion is fair or good, but the appetite is absent. With such a patient you give them a good steak and the very thought of it is nauseating to them. In such cases I do this. I take the best steak, grind it fine, spread it out on plates, put it in a warm oven, do not bake or over-heat it but just dry it. It takes 24 hours generally to dry it, and when it is dried it is brittle and you can pick up a piece of it and break it. Put it through the grinder again and you have a dry meat powder. A pound of meat when thoroughly dried is reduced to about four tablespoonfuls of powder. A patient can take a tablespoonful of the meat powder in a glass of milk 3 or 4 times a day and hardly realize they are taking food. They are not nauseated by looks, smell or taste of the steak. The nourishing effect on patients is certainly excellent. Of course I believe in milk and eggs and other articles of diet mentioned. I believe that in beef steak we have the greatest amount of nourishment in the least amount of bulk."

Dr. Dunn: In listening to the discussion I think the difference of opinion on forced and over-feeding is more apparent than real. What some call forced feeding others have called over-feeding and vice versa. We must distinguish very carefully between "forced-feeding" and "over-feeding."

Dr. Jordan: "If you noticed that in the foods I spoke of, milk I left out. I did not mention it at all. In the first place if you have occasion to give milk, why not give cream, far preferable, more easily digested. You do not get your stomach deranged, you do not get your distension, you do not get your bowel trouble. It is taken up right away. Butter is the easiest fat we have by far to assimilate. Next place in regard to that heavy dinner. What I prescribed with the dinner was plain rare roast beef, vegetables, plenty of bread and butter, and a little wine at one o'clock; not a heavy dinner at three. Do not misunderstand me, I am not trying to fill the stomach up with fluid in between or before meals. In the first place the efficacy, if you have not all tried it, of a glass of hot water the first thing that a patient takes in the morning before arising as Dr. Reynolds duly brought out, is the best stimulant the stomach can have. It cleans, it stimulates, and it absorbs and enables the patient to eat with comfort. In between meals—there were no six meals a day—if you call just two or three table spoons of cream and mix it with vichy a meal, or if you take a spoonful of bovinine in between meals with seltzer. Both of those are always acceptable to patients' stomachs.

Surgical Treatment of Tubercular Peritonitis.*

By D. S. Fairchild, M. D., Clinton, Iowa.

Intra-abdominal tuberculosis presents many points of interest both from a medical and surgical standpoint. Without stopping to consider the various avenues of entrance of the infection, the results of treatment will depend, to some degree, upon the elements involved in the individual case. The fact that the disease may involve primarily the pelvic organs, the appendix, the intestines or some of the mesenteric glands, and extend secondarily to the peritoneum or commence primarily in the peritoneum, is not without its influence in determining the course of procedure and the results to be obtained. There are without doubt certain intra-abdominal affections of a tuberculous nature that cannot be definitly diagnosed untill the abdomen is opened, and which, if allowed to go untreated by surgical means, infect the peritoneum, giving rise to a more or less extensive involvement of that membrane. In view of the fact that it occasionally happens that pelvic and intra-abdominal diseases appear, the nature of which cannot be absolutely determined, and if it be a tuberculous affection, it is not without reason that the disease may extend to the peritoneum and be later recognized as a tubercular peritonitis, the tuberculosis of the peritoneum standing in a secondary relation to a primary focus in some organ or tissue more or less closely related to the peritoneum and which constantly furnishes a dosage of infection.

It is an interesting fact in connection with a pure tubercular infection that the bacillus has but a small resistance to the reaction processes of the tissue and until a mixed infection occurs or a degenerative process developes, the tendency to distructive changes is not great. When the focus of tubercular infection of the peritoneum is in the tubes, the appendix of the intes-

*Read before the Western Surgical and Gynæcological Association.

tines, the tubercle bacillus is often associated with germs of other kinds, and we have to deal with other than pure tuberculosis of the peritoneum, and the problem involved in the treatment becomes more complex, difficult and uncertain.

A primary unmixed tubercular infection of the peritoneum with choked lymphatic spaces and ascites without much elevation of the temperature has so often been cured by accident when the abdomen has been opened for some other purpose, or by intention when a complete diagnosis had been reached, that some misconception has arisen as to the curative value of abdominal section in tubercular peritonitis as the cases are usually met with. I shall make no attempt to present a scientific classification of the different forms of tuberculosis of the peritoneum which may determine the question of operative or medical treatment, but content myself with observations on conditions, which in my judgement may properly influence the conduct of the surgeon in the management of cases of this disease.

The views presented by the late Dr. Fenger in the general condemnation of the operative treatment of tubercular peritonitis, were no doubt extreme but were probably useful in influencing surgeons to take a more conservative view of the treatment of the disease. It seems difficult or impossible to employ statistics in any useful way in determining the relative value of surgical and medical treatment of tubercular affections of the peritoneum on account of the many possible sources of error in determining the exact similarity of cases, the ability of the forces of the individual to resist the disease, and the activity of the infecting germs. There can be no certain guide, nothing better than the intuition of the surgeon founded on the logic of experience. It is, however, a recognized fact that any localized tubercular process is an element of danger to be met by carefully considered surgical procedures to relieve distressing symptoms and to prevent a more general infection. On these grounds an obscure intra-abdominal affection which presents the least suspicion of a tubercular nature should at once be considered from the standpoint of a possible local process which may furnish the elements of a more general disease. In the absence of positive diagnostic evidence an exploratory operation should be made to clear up the doubt, and it may be the means of preventing a wide spread infection of the peritoneum by a judiciously selected procedure. There is much recorded evidence to establish the wisdom and advantages of this course of action.

In a wide spread tuberculosis of the peritoneum, either determined before or after the abdomen is opened, the condition found will influence largely the result independent of the fact of the operation. If there is ascites and an absence of extensive adhesions, even if the peritoneum is well studded with tubercular granulations, a marked improvement or perhaps a cure may be expected in quite a percentage of cases, in how large percentage there are no safe statistics to show. It is quite probable however, that in these most favorable cases additional operation will be necessary before the patient may be said to be cured.

If it is found that extensive adhesions have been formed by which the abdomen is divided into recesses containing fluid, the probabilities of a cure would appear to be less for the reason that more or less extensive areas of diseased peritoneum could not be exposed to the influences which effect the beneficial result. It is true that temporary improvement may be obtained, but it may be expected that the reaction influence exercised upon the exposed areas would not permanently protect the membrane from the extensions of infection from undisturbed areas of disease.

If the intestines are matted together by extensive adhesions with or without pure tubercular pus or mixed infection and the process is extensive and requires the breaking up of the adhesions to expose the diseased tissues, immedsate unfortunate results may be expected with the least possible prospect of accomplishing good. If however the process is limited and tubercular pus of a pure culture or a focus of the mixed infection is found an operation and proper drainage may accomplish excellent results.

The fibrinoplastic form of tubercular perintonitis of extensive involvement would seem to be but little affected by operation, although Dr. John J. Bottomly, of the Boston City Hospital, reports seven cases with three recoveries, a percentage about equal to that obtained in the ascitic form. This is better than could be expected, but it may be assumed that the disease was not extensive.

Scattered through medical literature is to be found isolated cases of remarkable recoveries from operative procedures, for instance Dr. Robert G. LaConte, of Philadelphia, relates a case of operation in tubercular peritonitis where a piece of gauze five feet long and a yard wide was extracted through a sinus. The entire intestinal contents were now discharged through the opening. The fistula was closed by a resection of the bowel. Both tubes and ovaries were removed. When the fistula

was closed, fifteen months after the operation was performed, it was found that the peritoneum was practically free from tuberculosis. Dr. LeConte was of the opinion that this was a potent factor in the cure of the case. This case may be taken as one of the curiosities in surgery rather than establishing a lesson in the treatment of tubercular peritonitis.

We are not of the opinion that the treatment of tubercular peritonitis should be wholly handed back to internal medicine, but we are of the opinion that the cases for surgical treatment should be carefully selected. Our own opinion, based on personal experience and on the experience of friends, is that tuberculosis of the peritoneum attended with ascites which has resisted medical and hygenic treatment, should be treated by opening the abdomen. This should not be done too early or too late. If early the possibilities of cure by less radical means will be lost, and it is found that if the operation is employed too early, recurrences are much more frequent on account of the probability of the antitoxins which haa experimentally been proved to have something to do with the cure not being formed until the tubercules are mature. If the operation is too late the patient will have become exhausted. In the fibrous form the sams attention to early medical treatment should be considered, If, however, medical treatment is defered too long and degenerative changes have occurred, but little may be expected from opening the abdomen. According to Gattis, "The operation of laparotomy has a healing influence only in cases of fibrous tuberculosis, while in cheesy degeneration good effects are rarely noticed.

"The cure of fibrous tuberculosis by laparotomy is not due to an inflammatory reaction and active proliferation of the connective tissue stroma as is commonly believed, but is caused by a slow degeneration and subsequent absorption of the epitheloid cells (hydropic degeneration). The round cells and bacilli disappear simultaneously, leaving only the pre-existing connective tissue stroma with its blood vessels. This process is also observed in cheesy degeneration, but only in those cells situated in the connective tissue zone."

The conclussions we have reached are:

1st. If an intra-abdominal facus of tuberculosis is diagnosed or is suspected an abdominal section should be made with the view of efficient treatment.

2nd. If a chronic tuberculosis of the peritoneum with ascitis is diagnosed or believed to exist laparotomy is indicated as soon as it is found that medical and hygenic treatment has failed.

3rd. In fibrous tuberculosis of the peritoneum the same course should be persued and if cheesy degeneration has not commenced or progressed too far, a certain percentage of recoveries will follow. In acute tubercular peritonitis with ascitis and high temperature, laparotomy is useless. In extensive adhesive tuberculosis with matting of the intestines laparotomy is useless, and the attempt to separate the adhesions is dangerous in the immediate results.

Syphilis of the Nervous System.*

In this paper the author starts out by quoting statistics from which conclusions are reached, that at least one in every seven infected by syphilis develops some nervous lesion. The statement is also made that syphilis too often remains unrecognized until the period for relief is past, he considers this one of the diseases most successfully treated in the early stage, hence an early recognition is absolutely essential to the successful management. In order to diagnose this disease readily, it is necessary to become familiar with the symptoms presented. The theory is held that the disease is due to a micro-organism. Reference is made to the statement by Gowers, that no patient can be absolutely free from syphilis unless he never was exposed. The initial lesion of syphilis is very readily overlooked, and many patients state what they believe to be the truth, when they tell us they never have been infected.

Mention is made of a number of contributing factors that serve to hasten and bring to the surface as it were, syphilitic manifestations, of these trauma, mental and physical over-exertions, alcoholism and exposure, are the most prominent. The entire manifestations of this disease are divided into two classes: specific, which are the early ones usually, and para-syphilitic or the later. About 44 per cent. of all syphilitic intracranial lesions develop within the first three years after infection, and about 59 per cent. within the first five years, many of the cord lesions make their appearance during the early period mentioned. The para-syphilitic manifestations become apparent usually not before 6 to 10 years after the original infection, but may appear at a much later period.

The early manifestations are vascular lesions, endarteritis, thrombosis, also gumatous formations, meningo-encephalic inflammations, etc., we may find a rare form of waxy degeneration of the middle coat of the arteries. Atheroma may be of a syphi-

* Abstract of paper read by Dr. F. E. Coulter before the Missouri Valley Medical Society, Council Bluffs, Ia.

litic nature or may not. The para-syphilitic manifestations are represented by general paralysis of the insane in the encephalon, and posterior sclerosis in the cord, or a combination of both in rare instances.

One of the chief vascular alterations found among the early symptoms is obliterating endarteritis. Any of the cord or intra-cranial arteries may be the seat of this alteration, but the basilar, mid-cerebrals and vertebrals are most likely to suffer, the symptoms of course following, depend on the artery involved. Gummata may be found either on the vertex or the base, or both, very seldom in the interior. They may be diffused or circumscribed, single or multiple.

Under the head of symptoms produced by specific vascular lesions, the statement is made that they are not essentially different from those produced by any other like lesion, that is, a thrombosis due to syphilis is not essentially different from a thrombosis due to some other cause, granted that in both instances it is complete, but it is characteristic of syphilitic lesions that they are not complete, especially in the beginning. The following rules will assist in diagnosing a syphilitic from a non-syphilitic lesion; in the former there is a peculiar association or succession of symptoms that indicate a double or multiple lesion; there is a most unusual tendency to remissions and relapses; then the onset of the case is usully rather sudden than acute, and again the symptoms resolve rapidly under appropriate treatment, usually but not always, this depends upon the stage when seen and extent of injury already present.

The most frequent vascular lesion found is thrombosis, and great care should be exercised in the differential diagnosis between this condition and hemorrhage, because the treatment if successful, of the two conditions is very different. Partial lesions are frequent and account for the transient symptoms such as a hemiplegia that recovers fairly well, verbal amnesia, parathesia, lapses of consciousness that are fleeting, temporary mental confusions, etc. These conditions are often preceded by a warning, headache, vertigo, numbness. At this point is reported a case illustrative of the effect of appropriate treatment when early applied to these conditions.

A fugative paralysis of some of the extrinsic eye muscles is often present, also the Argyle Robertson pupil, and pupils with irregular borders. The ophthalmoscope is of much importance as it reveals alterations in the fundus in about 40 per cent. of all cases. Hemorrhage and embolism do not frequently occur as the result of syphilis.

As to prognosis, the statement is made that a faulty conception seems to exist on the part of profession upon this point, that if a thrombosis exists and is complete, due to syphilis, a recovery will not take place under the most religious exhibition of the mercury and iodides any more than if due to some other cause. The prognosis is better the earlier the condition is detected, if detected later, with careful treatment they may be held in check and improvement expected and if very late no great improvement is likely to occur. Gummata frequently absorbed but often irritative lesions remain at their sight. Areas of softening or sclerosis result from thrombosis, depending on a complete or partial occlusion of the blood vessel.

Turner makes the statement that 30 to 35 per cent. of cerebral syphilitics recover, that about 12 per cent. are fatal, while the remainder over 50 per cent. are more or less permanently maimed. Under the head of treatment it is noted that the only remedies worth mentioning in the early manifestations, are the iodides and mercury, and that neurologists are not a unit as to how the former should be given, some maintaining the large dosage and others the smaller. Gowers more especially favoring the small dose of the iodides, while authorities in this country resort to the larger doses.

The paper closes by stating that the subject is too vast to be anything like fully discussed in a single paper at one meeting.

The Prognostic Value of Tubercle Bacilli in the Sputum.

Brown (Journal of the American Medical Association, Feb. 21, 1903) states that the examination of one specimen of the sputum is of value if tubercle bacilli are found in proving the case one of tuberculosis of the respiratory tract; but if no tubercle bacilli are found, one examination is of little value. At least four or five specimens should be examined after the patient is directed how to collect his sputum; from one specimen little or nothing can be said regarding the prognosis. If it is found that the number of bacilli steadily decreases in a series of examinations at intervals sufficiently long, the patient may be improving; but the constitutional symptoms and local signs give much more accurate information. If on repeated examination large quantities of tubercle bacilli are found, the disease has in all probability advanced to caseation. The morphology of the tubercle bacilli affords little or no ground for prognosis, but the short bacill are suggestive of a more active process. The arrangement of the bacilli in clumps is more apt to be found in the severer cases, but may occur in all.

Charlotte Medical Journal

EDWARD C. REGISTER, M. D., Editor.

No. 36 South Tryon Street, - - - -

- - - - - - - - - - Charlotte, N. C.

HEART DISEASE.

The frequency with which the term heart disease is used to describe the cause of death suggests very naturally the inquiry whether it describes an actual condition or is only a term to conceal a failure to make a proper diagnosis. Authorities agree that different diseases of the heart are more common in these modern times, and while they may not be fatal in themselves they always predispose to other and more acute conditions ending in death. An enlarged heart never returns to its original size and death from cerebral hemorrhage or nephritis is a common termination. In elderly men, the heart naturally increases in size. When this is simply hypertrophy of the muscular walls, there is seldom any other change in the organ. In this condition there is practically no expansion or enlargement of its cavities, but when the thickness of the cardiac structure produces a diminution of the cavities the circulation is diminished, although no disease may be present. The causes of hypertrophy are usually an increase in the number of muscular fibers in the cardiac walls and not an increase in the size of the original fibers. Cardiac hypertrophy corresponds to the muscular development of a blacksmith's arm. From the new demands on its strength, producing an increase of the muscular fibers. Another cause of this hypertrophy is some obstacle to the circulation requiring an increased strength of the heart muscles to overcome it, such as a diseased valve or a tumor pressing upon a large artery or some diseased organ through which the circulation is obstructed. Hypertrophy is also produced by mental emotion which increase the force and frequency of the heart beats, also anger with continuous excitement or depression which may both raise and lower the heart's action. These and other causes not yet discovered are more or less prominent. Many persons have shortness of breath from over-exertion and beyond an increased line of dullness which indicates an enlarged heart there are rarely any other signs. Dilatation of the heart may be put down as a pathological condition of ominous import. The left ventrical may be so dilated that its capacity would be greater than that required to contain the whole of a healthy heart. The dilatation may be in all of the four cavities, or it may be confined to one of them. The venticlea are far more liable to dilatation than the oricles and the left more than the right. When the dilatations are associated so that eccentric hypertrophy and dilatation, with morbid changes in the function and shape of the valves exist, there is pronounced heart disease which is a very common form. The conditions of the heart are alternatively active and passive, active in systole, passive in diastole. If in the passive state while the blood is naturally flowing into a heart cavity, there is at the same time a reflex of blood into the same cavity in consequence of a defective valve, dilatation of that cavity will always occur. The extended wall of such a cavity may not be thicker than it is in health, yet as it bounds a greater space it will require more material and is hypertrophied by multiplication of the muscular fibers. In this state, the heart has been known to weigh 60 ounces or six times its natural weight. Such hearts are always found in persons who have had rheumatism and heart disease in childhood, and have grown up with a defective heart. Children with these troubles bear them better than adults. The body as it grows tolerates an amount of such disease that would overwhelm a grown-up person. Often times persons go on to advanced manhood with this condition and do not seem to suffer very much. Where both dilatation and hypertrophy are present, it reaches certain stages of progress noted by shortness of the breath, palpitations, irregular heart beating, and irregular pulse. In these cases, nephritis with dropsical swellings of the legs and body always precede death. Recent writers have described a form of dilatation in which there is no hypertrophy, in which the walls of one or all the cavities gradually grows thinner by fatty degeneration and absorption of the muscular tissue till this tissue is almost wholly removed and the walls are stretched and expanded in the effort to force the blood from their cavities. Fortunately, this is a rare disease. Simple atrophy of the heart occurs with wasting diseases in which the quantity of the blood is likewise diminished. There are many other affections to this organ which are both functional and organic, whose diagnosis can only be inferred by exclusion. Care in the diagnosis would bring out many facts concerning the exact condition present which is now overlooked.

CAN BOVINE TUBERCULOSIS BE TRANSMITTED TO MAN?

The discovery of tubercular bacillus has attracted so much attention and brought into the field a great many investigators who differ widely in their conclusions, showing both faults in the manner of study and

the capacity of the student to clearly interpret the various phenomena. A great many scientific enthusiasts assume that they had discovered a broad road along which positive facts could be gained and entered upon the work with a positiveness which give promise of settling the whole question at once. When Koch announced at the London Congress that Bovine Tuberculosis was not communicated to man it startled and called a halt to what was thought to be the overwhelming evidence about the uniformity of the transmission of bacillus. An indignent protest went up as if Koch had uttered some absurd statement beyond the power of proof. Thoughtful scientists realized that the conclusions accepted so freely might not be always correct, and began again to study the subject from a new point of view. At the International Congress on Tuberculosis in Berlin recently Koch reiterated his former views and pronounced strongly that the milk of cows and the flesh of animals infected with bacillus common to tuberculosis must not be considerad as a cause of the same disease in the human subject. The Prussian Government has given Koch every opportunity to secure trustworthy information in all cases of intestinal tuberculosis where there was a suspicion that it came from the milk from cows suffering from disease. As a result Koch declares that during a period of fifteen months during which he has examined over fifty cases he has been unable to find any evidence of such a transmission. On the other hand, persons who believe that such transmission takes place, cite cases of veterinary surgeons, pathologists, butchers, and men engaged in the slaughter house who have developed tuberculosis of the skin. Koch disputes this and believes that such conditions are not developed from local infection. He also asserts that even where local infection has followed it has been limited and that there is no evidence that it passed into the system and became a general infection. He shows from statistics that infective diseases arising from contaminating milk or diseased flesh come in groups and often in epidemics, and are not seen in isolated cases, and reasons that if tuberculous infection is transmitted in milk and meat it would appear in this form. An early observer before the bacillus of consumption was known maintained that consumption was not transmitted from animals to men, and that no case could be shown where the evidence was unquestioned. While no one has yet been very authoritative in pointing out the identity of the bacillus in milk, with that of meat, yet this view has been assumed and carried into practice in the very stringent laws against the use of the milk from tuberculous cows. The reason is probably in the assumption that tuberculous meat by being cooked could be rendered more inoxous whereas milk without the action of heat is more dangerous. Kock has pointed out that boiling the milk has very little influence in destroying the bacillus but making it into butter is to create a new medium for its growth and culture. Koch like a true scientist has gone at the subject in careful analysis of accurately recorded cases and from these he draws his conclusions. So far, his researches have supported his views and while they are strongly contradicted by other authorities it is evident that the subject is not well understood. The English Government has a committee of inquiry which are gathering facts and conclusions from many sources. In this country little has been done. A few individual cases not very clearly authenticated have been reported and made the basis for various papers more or less uncertain. All this discussion is very hopeful and shows clearly that the great facts of science are rarely discovered in all their relations by any one set of men or studies. Only through long study, constant verification and comparison can anything like approximate facts be obtained. So far there can be no doubt that bovine and human tuberculosis have many symptoms in common, but whether they are transmissible from one to the other awaits farther verification. In meantime, dogmatic statements and precipitated conclusions add very little to our stock of scientific knowlege. A large dairy in Wisconsin from which many tons of cheese was made was found to be infected with tuberculosis. The milk of over five hundred cows was shown to contain this peculiar bacillus. The cheese was sold on the market and a very careful inquiry was made to determine any possible infection, but nothing was found. The herd was destroyed and one enthusiastic writer estimated the loss in sickness and death following from this source. This had no reality only in his imagination.

SOME INTERESTING STATISTICS.

In the boastings of the great advances made in preventive medicines it is very cheering to find an array of statistics which sustain the theories. The close of the year brings out such figures in great prominence. Surgeon Sternberg gives us a very good summary of many of these facts in his opening lecture before the post-graduate school at Washington. The following statement sounds very cheery: "According to the best estimates, the average of human life in the sixteenth century was somewhat less than twenty years. At the present time, it

is more than twice as long and during the past twenty-five years the average duration of life has been lengthened about six years." This would make the average duration of life to-day forty-six years or over. In London the vital statistics of the first thirty years in 1800 showed a mortality of twenty-nine thousand. At the present time, the mortality is 19 per thousand. As indicating the various conditions of different cities of the world, the following facts are very significant. The death rates in Bombay was last year 48 to the thousand; in Calcutta, 39; in St. Petersburg, 25; in Trieste, 27; in Venice, 28; in Cairo, 35; in Paris, 19; in Brussels, 17; in Amsterdam, 18; in Hamburg, 18; in Vienna, 21; in New York, 17, in Philadelphia, 18; in Boston, 20; in Chicago, 21. It is estimated that in the United States in the year 1901, about 150,000 persons died of consumption and this is now recognized as a preventable disease. Yellow fever has practically disappeared and we have every reason to hope that not far away consumption will be a rare disease and practically stamped out.

Typhoid fever still continues as one of the dreaded diseases. Over 35,000 deaths are recorded in 1900 and according to Dr. Wesley Smith these were all preventable and with proper sanitation typhoid will disappear as fully as yellow fever. The plague which has broken out in San Francisco and through the ignorance of the officials, been allowed to obtain a foothold is now rapidly coming under control, and before another year will be effectually driven out. The reports of vital statistics in Great Britain show great progress from the improved sanitation and enforced measures for cleanliness, apparent in the decreasing mortality. Preventive medicine is undoubtedly one of the great fields for successful practice of medicine, which is scarcely yet occupied.

THE RELATION OF TREES TO CANCEROUS GROWTHS.

Dr. Dor, of Rueon, France, has lately published a very interesting report on the relation of cancer to locality, occupation, and vegetation in France. This appears to be made up from observations made by other medical men in different parts of the country. One of the reporters mentions observations on 73 cases of cancer, 67 of which occurred in farm-houses on the borders of forests and 6 occured only in villages. Many country people consider cancer to be of vegetable origin and believe that it is communicated by grass and hay, or by the leaves of the trees, and also that it is more common in persons who live in the woods. Dr. Dor thinks that there is some pathological growth on the bark of fir-trees which both in appearance and effects stimulate malignant growths in the human being. He presents evidence showing that where malignant disease was common these trees with this peculiar warthy growth were prevalent. Cases are mentioned where handling this parisyte has apparently communicated to the blood of the person a growth which was analagous to cancers. Several experiments have been made of inoculating the sap from this parisyte growth to animals and it is claimed a similar product is produced. Cancer cells have been injected into the fir tree bark and similar growths have followed. While these experiments are not new, Dr. Dor's revival of the subject has excited much interest, and new inquiries are being prosecuted along this line.

PERILS OF OLD AGE.

Few people realize that after middle life there is a steady accumulation of calcarious deposits and mineral salts in the body. Compounds of lime, magnesia, and other minerals which are easily eliminated in early life are retained and cannot be thrown off as readily. They are deposited in the arteries as calcarious matter. They circulate through the blood, interfering with the nutrition, and, as affet matter, seriously blockade the functional activities of the body. Earthy salts abounds in the cereals and bread is one of the most calcarious of foods. Some recent authors urge that fruits be made a diet to be more and more used with advancing age. Another author urges strict avoidance of all foods rich in earthy salts, and the frequent use of distilled water in large quantities with dilute phosphoric acid. Meats are thought to be injurious in old age and are condemned by many authorities. In a recent report on adulterated foods found in the diet served in an Old People's Home some very startling facts appeared. Hams that were supposed to be prepared by the old-fashioned method were found to come from pork that had been killed within a week. The color was produced by log-wood and other dyes and the smoke flavor came from pyroligneous acid. The curing process was completed by a composition of borax, boracic acid, sulphates, sulphuric, salycilic and benzoic acid at the expense of digestibility and healthfulness of the meat. The oysters were kept fresh by formaldehyde, analysis of which showed a large quantity present. The canned meats used were still more dangerous and contained large quantities of ptomans, yet the management of this home made a special boast of the excellent diet served to their inmates. In another public

institution it was shown that a carload of tainted meat was bought by the steward at 3 cents a pound, and after being thoroughly cooked was served up as sausage and Hamburg steaks. In all the large cities meats and chickens which have remained in cold storage a long time and become sadly deteriorated are bought up by canning factories and served highly seasoned as sausage or delicate dishes, going to hotels and dining-cars as prepared foods. Much of the injury and disease which follows these foods are attributed to other causes. Elderly persons with bad teeth and imperfect powers of mastication are patrons of these prepared foods and without doubt sudden deaths in some cases are due directly to the adulterations and dangerous qualities of such substances. Beef tea belongs to this catagory of foods. The flavor of beef can be so closely imitated that only analysis will determine its difference. Beef extracts are found which are entirely manufactured products, never having come from meat. It is evident that defective diet has much to do with increasing the disability and shortening life in elderly people.

DANGEROUS MEDICATION.

When called in the night to treat a case of apparent gastritis prominent by extreme pain and vomiting with eructations of gas, paroxysmal pain in the stomach with vom iting the temptation to use morphia by the needle is usually so strong as to be resistable. In many cases this is followed by a protracted fever and extreme debility with a variety of obscure symptoms which are not diagnosed. At the beginning the causes were intestinal toxemias which should have been removed by salines, hot-baths, and internal antiseptics. The use of morphia covered up the pain symptoms and retained the poisons, and in some measure helped on the eliminating processes through the temporary increased respiratory action and through the skin. The high temperature noticed is usually the direct action of bacterial poisonings on the heat centers and indicates the complicating conditions formed in the nervous system. When the toxemias follow from the absorption of the bile, the skin usually shows this causation. Often the extreme migraine precede the gastric attacks, or perhaps conditions of hysterio epilepsy may be present. In all cases, morphia can only be used in the latter stages after sharp elimination has been provoked, and then in small doses not repeated. Malarious poisons may sometimes be marked by severe gastric crisis. Morphine is contra-indicated in the early stages, and wherever used should be for a particular purpose and to accomplish a certain definite result. A prominent man was taken with a sudden attack of gastritis, and his family physician used morphia freely until his death three days later. The post-mortem revealed a marked case of intestinal toxemia which should have been prevented. The effort to stop pain while successful may be extremely dangerous in prolonging the possibility of continuing the poisonous condition. In all sudden attacks of spasmodic pain not traceable to any known cause bacterial poisoning should be recognized and remedies to increase elimination should be given.

THE DECAY OF THE TEETH.

Recently much has been said about Caries in the teeth increasing among civilized people. The general conclusion is that this is due to the depression of vital vigor through lack of power and over-taxing the nervous system, and through sedentary habits and bad luxurious living. In this as in other matters there are hereditary tendencies and faulty chemical condition of nutrition. An American physician residing in Berlin is credited with having discovered a particular form of bacteria which is supposed to be responsible for this form of decay. It is among the smallest of the bacteria family which multiply by division and by the formational spores. The spores seem to correspond to seeds, having great vitality and are unaffected by the temperature that would destroy the apparent plant. The multiplication of this bacteria is exceedingly rapid. While the total eradication of these germs are not possible, they can be kept down and prevented from growing only to a limited degree. The mouth is said to be infested at all times by a great many kinds of bacteria and generally harmless. Some of them probably are antagonistic to this particular kind. Where caries begin, these virulent bacteria swarm. Tubules containing this bacteria obtained from decayed teeth have been experimented with and cultures made from them. Sound teeth have been placed in these cultures and in from two to four weeks they become disorganized by the attacks of the bacteria. This seems to prove that the mouth contains some antagonistic acid or form of bacteria which prevents the dangerous form from destroying the teeth. There is evidently a need for some antiseptic to help on the battle with these bacterial forces in the mouth.

FISH FOOD.

In one of the popular medical journals of the day the editor has devoted considerable space to the revival of the old myth that fish food is rich in phospherous, hence is excellent as brain and nerve food. The origin of this statement came from Germany many years ago when a leading scientist wrote, "without phospherous, no thought." The great scientist Aggisia in an address in favor of a fish commission urged the same idea and attributed it to Dumas, the French Chemist. In reality, there is less phospherous in fish than in wheat and it is very doubtful if phospherous has any specific value, even if taken in large quantities. Mark Twain exploded this delusion long ago in a funny story. A young author submitted to him some poetry in which he quoted the sentence attributed to Aggasia, that a fish diet and phospherous was necessary to make brains. Mark Twain said that if the author believed that eating fish would give him brains and the specimen poetry submitted was an average of what he could do, he would advise that the author should eat a couple of whales before he wrote anything more and they must be of the largest kind.

BROADOAKS SANATORIUM.

In this issue of the Journal appears an advertisement of this Sanatorium. This hospital was established several years ago by Dr. Isaac M. Taylor who until recently has been associated with Dr. Murphy in the Insane Asylum at Morganton. Dr. Taylor has recently resigned his position in the Asylum Hospital and in the future proposes to devote his entire time to the Sanatorium.

There is great need of an institution of this kind in this part of the South and I know of no place better suited from a climatical standpoint than Morganton, and I know of no man better suited to be at the head of an institution of this kind than Dr. Taylor. He has had special training in this line of work and he has had every opportunity to accumulate an experience which admirably suits him for this responsible position.

Many cases of drug habit, inebriety and insanity can be treated to great advantage in an institution of this kind.

Book Notices.

The Surgical Diseases of the Genito-Urinary Organs. By E. L. Keyes, A. M., M. D., LL. D., Consulting-Surgeon to the Bellevue and the Skin and Cancer Hospitals; Surgeon to St. Elizabeth Hospital; formerly Professor of Genito-Urinary Surgery, Syphiliology and Dermatology at the Bellevue Hospital Medical College, etc., and E. L. Keyes, Jr., A.B., M.D., Ph.D., Lecturer on Genito-Urinary Surgery, New York Polyclinic Medical School; Surgeon to the Out-Patient Department, St. Vincent's Hospital; Physician to the Venereal Clinic, Out-Patient Department of the House of Relief of the New York Hospital, etc. A revision of VanBuren and Keyes's Text-Book. With one hundred and seventy-four illustrations in the text and ten plates, eight of which are colored. New York and London: D. Appleton & Co. 1903.

This work is presented as a later edition of the text-book by Van Buren and Keyes, and the changes presented are such as to make it practically a new one. The anatomical order followed in the earlier editions has been abandoned. Venereal diseases, as such, having been shut out, it seems proper to relegate sexual and genital maladies to the second place, giving the surgical picture of urinary disorders the first and more prominent position. Just as syphilis has grown away from true genito-urinary surgery, so have all the sexual psychoses estranged themselves and sought shelter with the venereal specialist.

Gonorrhœa is so intimately associated with the inflammatory disorders of the genito-urinary tract, both in its expression as an acute disease and in the wide-reaching influence of its sequelæ, that its consideration has been greatly amplified, and its course followed far beyond the genito-urinary system.

A conservative attitude has been adopted upon some important questions of surgical treatment, such, for instance, as ureteral catheterization.

The authors have furthermore adopted a classification of the inflammations of the posterior urethra, the bladder and kidney in the interest of clinical clearness; and while this may ultimately require modification, it avoids confusion and the multiplicity of descriptive detail.

No modification has been made in the treatment of hydrocele and varicocele. The simple methods originally advocated have been adhered to; but an attempt has been made to expound in a practical manner the pathogenesis of urethral stricture, extrava-

sation of urine, and bacteriuria. The new surgical treatment of Bright's disease by stripping the kidney capsule receives no notice in the text since the evidence thus far accumulated is insufficient for trustworthy generalization.

The urine has been considered from the surgical, clinical standpoint; and urinary antisepsis not theoretically, but according to the dictates of common sense.

The bibliography has been arranged to suit the requirements of the advanced student. To this end original work has in some cases been neglected in favor of more comprehensive recent publications.

Surgical Anatomy and Operative Surgery. For Students and Practitioners. By John J. McGrath, M. D., Professor of Surgical Anatomy and Oporative Surgery at the New York Post-Graduate Medical School, Visiting Surgeon to the Harlem Hospital, and Assistant Visiting Surgeon to the Columbus Hospital, New York. Illustrated with 227 Illustrations. Including colors and half-tones. Pages xiv-559. Royal octavos, extra cloth, $4.00 net; sheep or half Russia, $5.00 net, delivered. Philadelphia: F. A. Davis Company.

The profession will welcome the appearance of a new work on surgery which possesses so many obvious qualifications as does this one. The two qualities which have gone hand in hand in its composition are those of lucid description and accurate illustration, a combination of author and artist, which are admirable in result. The use of diagrammatic drawings is very extensive, as these have been found most satisfactory in modern teaching. The anatomical data furnished is sufficient, but is stripped of all that is not essential to the performance of the surgical operation under consideration. Students and practitioners of surgery may be recommended to use this work without fear of disappointment; it is compact in size, and contains 227 illustrations, which adequately elucidate the text.

A Text-Book of Legal Medicine and Toxicology. Edited by Frederick Peterson, M. D., Chief of Clinic, Nervous Department of the College of Physicians and Surgeons, New York; and Walter S. Haines, M. D., Professor of Chemistry, Pharmacy, and Toxicology, Rush Medical College, in affiliation with the University of Chicago. Two imperial octavo volumes of about 500 pages each, fully illustrated. Philadelphia, New York, London; W. B. Saunders & Company, 1903. Per volume: Cloth, $5.00 net; Sheep or Half Morocco $6.00 net.

This work presents to the medical and legal professions a comprehensive survey of forensic medicine and toxicology in moderate compass.

For convenience of reference the treatise has been divided into two sections, Part I and Part II, the latter being devoted to Toxicology and all other portions of Legal Medicine in which laboratory investigation is an essential feature. Under "Expert Evidence" not only is advice given to medical experts, but suggestions are also made to attorneys as to the best methods of obtaining the desired information from the witness. The Bertillon and Greenleaf-Smart systems of identification are concisely and intelligently described, and the advantages of each stated. An interesting and important chapter is that on "The Destruction and Attempted Destruction of the Human body by Fire and Chemicals," for on the determination of the human or animal source of the remains frequently depends the legal conduct of a given case, and the guilt or innocence of the accused. A chapter not usually found in works on Legal Medicine, though of far more than passing significance to both the medical expert and the attorney, is that on the medicolegal relations of the X-Rays. The responsibility of pharmacists in the compounding of prescriptions, in the selling of poisons, in substituting drugs other than those prescribed, etc., furnishes a chapter of the greatest interest to everyone concerned with questions of medical jurisprudence. Also included in the work is the enumeration of the laws of the various States relating to the commitment and retention of the insane. In fact, the entire work is overflowing with matters of the utmost importance, and expresses clearly, concisely, and accurately the very latest opinions on all branches of forensic medicine and toxicology.

Medical Jurisprudence, Insanity and Toxicology. By Henry C. Chapman, M. D., Professor of Institutes of Medicine and Medical Jurisprudence in the Jefferson Medical College, Philadelphia. Third Edition, Thoroughly Revised, Enlarged, and Reset. Handsome 12mo. volume of 329 pages, fnlly illustrated, including four colored plates. Philadelphia, New York, London: W. B. Saunders & Comdany, 1903. Cloth, $1.75 net.

This work is based on the author's practical experience as Coroner's Physician of the City of Philadelphia for a period of six years. Dr. Chapman's book, therefore, is of unusual value to the medical and legal professions, presenting, as it does, the information gained from active participation in medicolegal cases. This third edition,

enlarged by the addition of new matter to the extent of seventy-five pages, has been entirely reset, and it is evident that in its preparation every page has undergone a careful scrutiny, so as to include the very latest advances in this important branch of medical science. Much of the matter has been rearranged, the text has been more fully illuminated by additional references to cases, and a number of new figures and tables have been added.

In reviewing this excellent work we have found that it covers the field completely and thoroughly, nothing of practical importance to the physician or lawyer having been omitted. In our opinion, there is no doubt that the work will meet with as great favor as the previous edition—a popularity which it certainly deserves.

Tuberculosis: Recast from Lectures Delivered at Rush Medical College, in affiliation with the University of Chicago. By Norman Bridge, A. M., M. D., Emeritus Professor of Medicine in Rush Medical College; Member of the Association of American Physicians. Handsome 12mo. volume of 302 pages, illustrated. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Cloth, $1.50 net.

In this excellent work the practical side of the care and management of those sick with the various non-surgical forms of tuberculosis has been concisely stated. Full consideration has been given to prophylaxis an all-important phase of the subject that has heretofore been much neglected. There are also chapters upon the Bacillus of Tuberculosis; on the Pathology, Etiology, Symptoms, Physical Signs, Diagnosis, and Prognosis of the disease, each treated in the judicious and thorough manner to be expected in a work by such a well-known authority as Dr. Bridge. Treatment is accorded unusual space, there being chapters upon Hygienic Treatment, Management of the Diseased Lung, Climatic Treatment, Medicinal and Local Treatment, Special Treatment, besides a chapter devoted to the subject of Sanatoria. Altogether the work is a most valuable one, and we heartily recommend it to practitioners as the latest and best work of its pretensions it has been our good fortune to review.

Practical Points in Nursing. For Nurses in Private Practice. With an Appendix containing Rules for Feeding the Sick; Recipes for Invalid Food and Beverages; Weights and Measures; Dose List; and a full Glossary and Medical Terms and Nursing Treatment. By Emily A. M. Stoney, late Superintendent of the Training School for Nurses, Carney Hospital, South Boston, Mass. Third Edition, Thoroughly Revised. Handsome 12mo. of 458 pages, fully illustrated, including 8 colored and half-tone plates. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Cloth, $1.75 net.

The continued and increasing popularity of this little volume has placed the publishers under the obligation of keeping it abreast of the times, of making it reflect the latest advances in the progressive profession of nursing. The revision has been extensive, every page showing evidences of careful scrutiny. Considerable portions of the work have been either amended, modified, or amplified in accordance with the progressive spirit of medicine and its indispensable handmaid, nursing. The sections treating of certain diseases, especially the infectious diseases, as well as the treatment of the common poisonings, have been in large part recast and rewritten. By the extensive revision the usefulness of the book has been greatly extended and its trustworthiness enhanced. There is no doubt that the work in its third revised form, will maintain the popularity justly won by the earlier edition.

The Care of the Baby. A Manual for Mothers and Nurses, containing Practical Directions for the Management of Infancy and Childhood in Health and in Disease. By J. P. Crozer Griffith, M. D., Clinical Professor of Diseases of Children in the Hospital of the University of Pennsylvania; Physician to the Children's Hospital, Philadelphia. Third Edition Thoroughly Revised. Handsome 12mo. volume of 436 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Cloth, $1.50 net.

Dr. Griffith's manual on the care of the Baby is without question the best work on the subject we have seen. The fact of a third edition being called for within such a short time, is sufficient evidence of its popularity. In preparing this edition every part of the book has been carefully revised and brought fully in accord with the latest advances in the subject. Several new recipes have been included in the appendix, making this excellent part of the work even more complete than before. A large number of new illustrations have been added, greatly increasing the value of the book to mothers and nurses. As we mentioned above, of the many works on this important subject that have come to our desk, this is, undobtedly, the best, distinguished by soundness of advice, conciseness of expression,

and clearness of style. Physicians could not perform a better service for their patients than the recommending of this excellent work to every mother.

The Internal Secretions and the Principles of Medicine, by Chas. E. de M. Sajous, M. D., Fellow of the College of Physicians of Philadelphia; Member of the American Philosophical Society; the Academy of Natural Science, Philadelphia, etc.; Knight of the Order of Leopold of Belgium, etc. Formerly Lecturer on Laryngology in Jefferson Medical College; and Professor of Laryngology and Dean of the Faculty in the Medico-Chirurgical College, etc. Vol. I. 8vo., cloth, pp. 800, with 42 illustrations. F. A. Davis Co., Publishers, 1903.

This is the most voluminous treatise ever published covering a field of study and investigation that has attracted no little attention in recent years. The ductless glands are far from well understood. That they have functions of a very high order cannot be questioned, and just who will furnish a correct key to unlock their mysteries is to be determined in the future. The author has made a very thorough study of the adrenals in connection with their clinical pathology, in relation to the respiratory processes and the composition of the blood, to the general oxydizing processes, and the relation of the thymous and thyroid glands to them. The pituitary bodies, the spleen and pancreas, with their relation to the internal secretions, and the relations of the latter to immunity, and the preservation of life, are all important subjects comprised in the work.

The writer has been a tireless worker in the field of medical literature, his labors in connection with the "Annals of the Universal Medical Science," and its successor, the "Analytical Cyclopedia of Practical Medicine," fitted him well for a consideration of the subjects embodied in "Internal Medicine."

We have not had time to go over so large a work thoroughly, but the glimpses taken here and there justify our anticipations as to future opportunities along the paths whose elucidation is herein essayed.

The arrangement of the book is most excellent and there is no doubt that it is the best publication of the kind ever published.

Diseases of the Pancreas, Diseases of the Suprarenal Capsules, and Diseases of the Liver. By Dr. L. Oser, of Vienna; Dr. E. Neusser, of Vienna; and Drs. H. Quincke and G. Hoppe-Seyler, of Kiel. The entire volume edited, with additions, by Frederick A. Packard, M. D., late Physician to the Pennsylvania and to the Children's Hospitals, Philadelphia; and Reginald H. Fitz, M. D.; Hersey Professor of the Theory and Practice of Physic, Harvard University Medical School, Boston. Handsome octavo of 918 pages, illustrrted. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Cloth, $5.00 net; Half Morocco, $6.00 net.

This book combines in one volume the sum of our knowledge concerning diseases of the Pancreas, the Suprarenal Capsules, and the Liver. Any contribution on these subjects is of great interest to the profession, and these monographs, proceeding from such distinguished investigators, will be found of unusual importance. In the sections on the Pancreas and the Suprarenals, the numerous experiments upon animals cited will be of the greatest value to the pathologist, affording an insight into the more deep-seated processes, and offering an opportunity of comparing the disturbances of function produced by morbid conditions experimentally induced, with bedside and autopsy observations. In editing these sections the editor has availed himself of the writings of Korte and Mayo Robson, especially the latter's important treatise on the etiology and treatment of chronic pancreatitis. An editorial addition to the section on the Suprarenal Capsules which seems especially noteworthy, is the investigations and discoveries on the active principles and therapeutic properties of suprarenal extract.

The excellent article on the Liver is as thorough and complete as those on the Pancreas and Suprarenals. Dr. Packard's careful clinical work, and his interest in the diseases of the Liver, mark him as the most suitable person to edit this article. A survey of this work shows numerous critical additions, embodying the very latest contributions, besides expressions of his own views regarding subjects under discussion. He has devoted special care to diagnosis and treatment, including the surgical procedures that have recently found their place in this field. With these numerous editorial additions the articles are brought fully up to date, and have no equal in our language.

Clinical Treatises on the Pathology and Therapy of Disorders of Metabolism and Nutrition. By Carl von Noorden. Part III. Membranous Catarrh of the Intestines (Colica Mucosa). New York: E. B. Treat & Co. Price, 50 cents.

The English-speaking physicians of the world are to be congratulated upon the publication here, simultaneously with its appearance in Berlin, of Von Noorden's and

Dapper's masterly exposition of the subject of membranous catarrh of the intestines. This is one of the diseases which every busy practitioner encounters frequently, and under the methods of treatment prevalent, until recently, was very difficult of cure. Our author traverses all these questions in a manner which is well-nigh exhaustive and almost convincing, since he is able to report a remarkably large proportion of cures obtained by the method which he recommends.

Diseases of the Stomach. By Dr. F. Riegel, of Giessen. Edited, with additions, by Charles G. Stockton, M. D., Professor of Medicine in the University of Buffalo. Handsome octavo volume of 835 pages, illustrated, including 6 full-page plates. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Cloth, $5.00 net; Half Morocco, $6.00 net.

This volume, like the others of this excellent practice, is thorough and complete. The importance of examining the stomach-contents in diagnosis, and the various methods of obtaining the contents and performing the examination, are discussed with the accuracy and clearness that spring from wide experience. Full consideration is given to the hydrochloric acid question as a factor in the pathology of stomach diseases, the latest views having been incorporated by the editor. Particular attention has been accorded disturbances of motility, and their influence in the disturbances of secretion. It is evident that careful study has been devoted to the subject of impairment of the absorptive powers, and the significance of gas-fermentation has been emphasized.

The eminent editor, a recognized authority on diseases of the stomach, has added to the already excellent German text his own extensive experience, bringing the work in accord with our present knowledge. We are confident that for scientific excellence and completeness, as well as for mechanical perfection, this work stands unrivalled.

The Worth of Words. A Scholarly Work on the Good and Bad Use of English Words. By Dr. Ralcy Husted Bell. With introduction by Dr. William Colby Cooper. The Grafton Press, N. Y. Price $1.50.

Dr. Bell has written a good book. It is interesting from every standpoint.

Worth of Words should be adopted as a text book in all our schools, academies and colleges, and it should be used as a ready reference book by all writers.

Clinical Treatises on the Pathology and Therapy of Disorders of Metabolism and Nutrition. By Prof. Carl von Noorden, Physician-in-Chief to the City Hospital, Frankfurt-am-Main. Authorized American edition translated under the direction of Boardman Reed, M. D. Part II, Nephritis. New York: E. B. Treat & Co. 1903. Price, $1.00.

The author's handling of the subject of nephritis in the following pages is bold, original, and somewhat iconoclastic. Nothing is sacred to him but indubitably demonstrated truth. This is the proper course in the determination of scientific questions.

He has by actual experiments exploded the myth so long accepted that the light meats are safer than the dark ones in various diseases, including nephritis. The author has questioned and gone far towards disproving the theory that milk is the best diet in all cases of nephritis. Indeed he has demonstrated that in many cases, certainly, the ingestion of fluids in this disease needs to be restricted rather than encouraged. In various other respects he has established for the treatment of the different forms of Bright's disease rules founded upon a critical scientific study of numerous cases, instead of the familiar directions handed down from an earlier period when clinical observations were less exact and pathological theories more nebulous than they are at present.

It is refreshing and invigorating to receive instruction from one so sure of his ground as Prof. von Noorden. The writer prescribes a therapy the effectiveness of which he has proved repeatedly, and other clinicians may safely follow his lead.

Literary Notices.

W. B. Saunders & Co., Medical Publishers, of Philadelphia, announce the early publication of the following books:

"The Vermiform Appendix and its Diseases." By Howard A. Kelly, M. D., Professor of Gynecology, Johns Hopkins University, Baltimore; and E. Hurdon, M. D., Assistant in Gynecology, Johns Hopkins University, Baltimore.

"Myomata of the Uterus." By Howard A. Kelly, M. D., Professor of Gynecology, Johns Hopkins University, Baltimore.

"A Text-Book of Legal Medicine and Toxicology." Edited by Frederick Peterson, M. D., Chief of Clinic, Department of Neurology, College of Physicians and Surgeons of New York City; and Walter S. Haines, M. D., Professor of Chemistry, Pharmacy, and Toxicology, Rush Medical

College, in affiliation with the University of Chicago.

"A Text-Book of Operative Surgery." By Warren Stone Bickham, M. D., Assistant Instructor in Operative Surgery, College of Physicians and Surgeons, New York City.

"The Practical Application of the Rontgen Rays in Therapeutics and Diagnosis." By William Allen Pusey, M. D., Professor of Dermatology. College of Physicians and Surgeons, Chicago; and Eugene W. Caldwell, B. S., Director of the Edward N. Gibbs Memorial X-ray Laboratory, and University and Bellevue Hospital Medical College, New York City.

"Tuberculosis." By Norman Bridge, M. D., of Los Angeles, Emeritus Professor of Medicine, Rush Medical College, in affiliation with the University of Chicago.

"A Text-Book of Obstetrics." By J. Clarence Webster, M. D., F. R. C. P. (Edin.) Professor of Obstetrics and Gynecology, Rush Medical College, in affiliation with the University of Chicago.

"A Text-Book of Diseases of Women." By Barton Cooke Hirst, M. D., Professor of Obstetrics, University of Pennsylvania, Gynecologist to the Howard, the Orthopedic, and the Philadelphia Hospitals.

"A Text-Book of Pathology." By Joseph McFarland, M. D., Professor of Pathology and Bacteriology, Medico-Chirurgical College, Philadelphia.

"The Blood in its Clinical and Pathologic Relations." By Alfred Stengel, M. D., Professor of Clinical Medicine, University of Pensylvania; and C. Y. White, Jr., M. D., Instructor in Clinical Medicine, University of Pennsylvania.

"A Thesaurus of Medical Words and Phrases." By Wilfred M. Barton, M. D., Assistant to Professor of Materia Medica and Therapeutics and Lecturer on Pharmacy, Georgetown University, Washington, D. C.; and Walter A. Wells, M. D., Demonstrator of Laryngology and Rhinology, Georgetown University, Washington, D. C.

New Editions.

"Medical Jurisprudence and Toxicology." By Henry C. Chapman, M. D., Professor of Institutes of Medicine and Medical Jurisprudence, Jefferson Medical College, Philadelphia, Member of the College of Physicians and Surgeons, Philadelphia, etc.

"A Text-Book of Modern Therapeutics." By A. A. Stevens, M. D., Lecturer on Physical Diagnosis, University of Pennsylvania, Professor of Pathology, Woman's Medical College, Philadelphia.

"Practical Points in Nursing" for Nurses in Private Practice. By the late Emily A. M. Stoney, Supt. of the Training School for Nurses, Carney Hospital, South Boston, Mass.

"The Care of the Baby." By J. P. Crozer Griffith, M. D., Clinical Professor of Diseases of Children, University of Pennsylvania; Physician to the Children's Hospital, Philadelphia, etc.

The April Review of Reviews is well stocked with good articles on live topics. The editor, in "The Progress of the World," discusses the financial side of the Panama Canal proposition, which was taken quite out of the category of academic questions by the Senate's action in ratifying the treaty with Colombia. The Delaware situation and many other matters of political and social interest are also editorially treated. The award of the Anthracite Strike Commission is reviewed and analyzed by Dr. Walter E. Weyl. Professor Harry Pratt Judson sets forth the municipal situation in Chicago on the eve of the city elections. "Political Conditions in Russia," apropos of the Czar's recent manifesto, is the subject of a well-informed article by N. I. Stone. Mr. Lawrence Reamer writes of "A New Régime for American Opera," referring to the retirement of Mr. Grau and the induction of Mr. Conried as manager of the Metropolitan Opera House in New York City. The Hon. Horace Plunkett outlines the remarkable progress recently made by the Irish farmers along the lines of associated effort. Two railroad projects of unusual importance—the Trans-Canada and the South Australian land-grant line—are described in detail. Mr. David E. Cloyd contributes a unique study of school conditions in the South. In connection with the centenary of the State of Ohio, Mr. Murat Halstead writes about some of the characteristic features of that commonwealth's settlement and growth, while our newer West is represented in a brief paper by Charles H. Harger on "Pushing Back the Arid Line." In this number of the Review appears a reproduction of the famous Sargent portrait of President Roosevelt, recently completed, about which so much has been written.

Abstracts of the Leading Articles of the Month.

The Gelatin Treatment of Haemoptysis.

Tickell (The London Lancet, February 28th, 1903).—In the treatment by means of the rectal injection of a solution of gelatin we have a method of checking hæmoptysis which promises exceedingly well. Hypodermic injections of gelatin solution have been used with excellent result, as regards the checking of hæmorrhage, but unfortunately it is associated with a series of unpleasant effects. These are: (*a*) The exceeding painfulness of the injection; (*b*) occurrence of necrosis of the skin; (*c*) occasional presence of tetanus spores in the gelatin causing tetanus in the patient; and (*d*) elevation of the body temperature. Every one of these effects is avoided if the gelatin solution is given by rectal injection, and the hæmorrhage is as efficiently checked. The injection is given in the ordinary way, about nine ounces of the solution being passed into the rectum three times a day until the sputum ceases to show any trace of blood. When the hæmorrhage has been completely stopped the patient must be kept quiet in bed for several days on a light diet. The solution is prepared as follows: One ounce and three quarters of gelatin are dissolved in two pints three and three quarter ounces of boiling water and boiled very gently for an hour until the volume is reduced by evaporation one fifth. It is then cooled down to the body temperature and is ready for use.

The Gas Evolved in the Decomposition of Hydrogen Dioxide by Pus.

Marshall (University of Pennsylvania Medical Bulletin) says that it seemed that possibly the bactericidal action of hydrogen dioxide might be due to its penetrating the cell membrane of the bacterium, and coming in contact with some body contained in the bacterium which possessed the property of decomposing hydrogen dioxide, liberated the gas which by its physical action, ruptured the membrane, thus destroying the vitality of the bacterium; but experiments made with the bacillus megatherium, bacillus anthracis, and the yeast cell did not appear to substantiate the thought. Von Bruns, in recommending the use of hydrogen dioxide in the treatment of infected wounds, attributes its action as being partly physical and partly chemical. It certainly has a physical action in mechanically loosening and disintegrating necrotic matter, and probably also a chemical action, due to the liberation of oxygen in the nascent state, in the production from noxious substances of new compounds which may be innocuous in character. Use is made of its physical action, as first suggested by Crile (Browning), in mechanically removing the particles of carbon in gunpowder burns, which, after the healing of the wound, gave a bluish-black appearance to the skin. It might also be found useful in removing the particles of coal which produce the bluish-black stains in the wounds of workers of coal. It is unlikely that absorption into the circulation of a quantity of the solution sufficient to produce gas emboli occurs when it is employed in the treatment of wounds and cavities, provided openings exist for the free escape of the gas, so that no pressure is exerted on the liquid.

Vaccination and Serum Therapy Against the Bacillus of Dysentery.

Gay (Univ. of Penn. Med. Bull.) discusses experimental vaccination and serum therapy against infection with the bacillus of dysentery.

There is no longer any doubt as to the existence of a form of dysentery, which is specific in the full sense of the term. The particular bacillus, now demonstrated to be the cause of the disease, which was isolated by Shiga in Japan, chiefly through the researches of Flexner and his assistants has been shown to be the cause of acute and subacute dysentery in the tropics and of the sporadic and institutional epidemic disease in temperate climates. Confirmatory evidence in regard to its etiological role has come from Germany and Holland; and within the past few weeks Duval and Bassett have established the casual relation between the bacillus and the summer diarrheas of infants. In carrying out his work, Gay used several strains of bacilli from different sources. These included the bacillus isolated by Shiga in Japan, that isolated by Flexer in the Philippines, another from Kruse in Germany, and one from Duval obtained in New Haven. These strains were used: (a) For the production of vaccines, and (b) for the immunization of the horse. Since the organism tends to lose its virulence for guinea-pigs, when cultivated continuously outside the body, it was necessary to keep up its activity by regular passage through the bodies of these animals.

As the toxin of the dysentery bacillus is probably purely intracellular, immunity can only be secured by inoculating with cultures of the organism. Suspensions of the bacilli in salt solution are treated with 0.05 per cent. of tricresol, which suffices to kill the bacilli in two hours; they are then considered as vaccines and used for inoculation either of the guinea-pig or horse.

Fatal doses of the dysentery vaccines

cause death, when inoculated subcutaneously into guinea-pigs, in from eighteen hours to ten days. Animals receiving a non-fatal dose of the vaccines lose weight persistently for from seven to ten days and then gradually return to normal within three weeks. Guinea-pigs which have received one or more subcutaneous injections of less than the lethal dose of dysentery vaccines show a marked protection against multiple intraperitoneal lethal doses of the living organism. While protection afforded by a given vaccine against its own strain of B. dysenteriæ is practically absolute, it is found that rarely under similar conditions the protection against other strains of the same organism may be marked by failure. This suggests the advisability of combining several strains of the bacillus in the preparation of the vaccines.

The following are his conclusions:

(1) The bacillus of Shiga is the cause of acute and other forms of dysentery in tropical and temperate climates, and, probably, of a part of the summer diarrheas prevailing in warm climates among infants.

(2) Guinea-pigs are susceptible to experimental infection with B. dysenteriæ, and react to inoculation in a characteristic manner.

(3) The bacillus of dysentery, cultivated outside of the body quickly suffers a reduction in virulence for guinea-pigs; but the virulence can be readily increased by successive passages through the bodies of these animals.

(4) The passage of the B. dysenteriæ through guinea-pigs permits of the establishment of a uniform grade or degree of virulence in the organism, irrespective of its source, which adapts it for the production of vaccines of quite uniform activity.

(5) The vaccines consist of suspensions of dysentery bacilli, killed by addition of tricresol, the activity of which undergoes an increas, for a time at least, that is coincident with disintegrative changes taking place in the microorganisms.

(6) This vaccine suffices to protect guinea-pigs from a succeeding multiple fatal dose of living dysentery bacilli, and to produce in the horse an active immune serum.

(7) The immune serum of the horse exhibits marked protective properties in preventing fatal infection with B. dysenteriæ or intoxication with its vaccine in guinea-pigs.

(8) While the several dysentery bacilli used in this investigation belong to one definite species, minor distictions were present among them. The most marked differences noted were the weaker virulence of the "Kruse" strain as compared with the other strains of the bacilli, and the slightly reduced activity both of vaccine and immune serum when directed against strains of organism other than that from which they were prepared.

(9) The bacillus of dysentery resists bacteriolysis by blood serum to a greater extent than some others of the colon-typhoid group of bacilli.

(10) A useful serum therapy of bacilliary dysentery and of certain forms of the summer diarrheas of infants is rendered highly promising.

The Treatment of Puerperal Convulsions.

Dr. Adams (Intercolonial Medical Journal of Australasia) says that in choosing the measures to be adopted when the convulsions have already set in, three principles should ever guide our practice: (1) Aid elimination, and if possible, dilute the toxine. (2) Control the convulsions. (3) Empty the uterus.

To accomplish the first indication, Jardine, of Glasgow, has advocated the instillation, either by high enemata, intercellar or intravenous transfusion. The effect is to dilute the toxine and aid its elimination through the kidneys and skin. In many instances it is of undoubted value.

In order to control the convulsions, one may find some guide by noting the condition of the pulse. In cases where the tension is extreme, nothing in the author's experience acts so rapidly as venesection, but it must be admitted that its effects are transient, and can only be looked upon as affording time for other and more lasting means. Of these, veratrum viride enjoys a high reputation in American obstetrics, while chloral, nitroglycerin, chloroform inhalation, and subcutaneous injection of morphine are extolled by British and Continental authorities. Pilocarpine has been condemned by most who have extended experience of it, for although an undoubted cardiac depressant, its effects on the bronchial secretion lead to pulmonary œdema, often with disastrous results. To control the frequency of the convulsions, nothing perhaps affords more satisfaction than the administration of chloroform, but it has the disadvantage of increasing the tendency to œdema of the lungs. Here, the administration of morphine has proved of signal benefit, and, although, on theoretical grounds, it might be supposed to interfere with the all-important elimination, practically, this is not the case. When given, it should be in good doses $\frac{1}{2}$ grain hypodermically, and repeated at suitable intervals until the convulsions are brought under control. A contraindication may be where there is evidence of chronic nephritis, commonly seen in multiparæ.

The question of emptying the uterus when eclampsia has set in has given rise to much discussion, and the problem is not yet settled on a satisfactory basis. If labor has set in, the practitioner's course is fairly well marked out for him, the indications being to control the fits, and facilitate delivery in every way compatible with as little injury to the parturient canal as possible. For it cannot be too strongly pointed out that, owing in all probability to their defective eliminating capacity, these patients are particularly liable to sepsis.

But if labor has not set in, should the uterus be emptied, or should our efforts be confined to the endeavor to control the fits, and aid elimination? At the present time, obstetric opinion is divided on the question. One school, headed by illustrious names, such as G. Herman advocates the latter policy, asserting that all efforts at dilatation of the cervix tend to increase the fits; that *accouchement force* is unjustifiable and that nature will solve the question by initiating labor. The advocates of this school can undoubtedly adduce a formidable array of successful cases in evidence to support their argument. And it may be admitted that in a large number of cases recovery will take place under almost any plan of treatment, provided the uterus does empty itself.

The author's experience is in favor of getting the uterus evacuated as soon as possible in such cases. And with our present knowledge of the causes of disaster following the socalled *accouchement force*, as practised in former times, it does not appear asking too much that the relief which undoubtedly follows evacuation of the uterus should not be denied to such desperate cases. If these efforts are made under anæsthesia, he does not believe the fits are aggravated. As a matter of fact, he does not recollect a patient dying where the uterus was rapidly emptied, but he has, unfortunately, seen many die before nature effected delivery.

Malarial Fever in Infancy.

Peters (Johns Hopkins Hospital Bulletin) brings out the idea of the possibility of the malarial organism being transmitted directly from the mother to the fetus in utero. Laveran is said to have held such transmission as proven, Machiafava and Bignami hold the opposite view. The following case is reported. The mother, a German woman, had had repeated attacks of malarial fever. She had a characteristic chill immediately before the birth of the child which became the subject of Peter's observations. Examination of the mother's blood showed typical, half-grown tertian malarial organisms. The child was perfectly well at birth. Examinations of fresh blood specimens from the ear on the second and third days failed to show malarial organisms. On the fiftieth day after the confinement the child was found to have a very severe anemia with a marked enlargement of the spleen. After searching two fresh, unstained, cover-glass preparations of the blood, three malarial parasites of the tertian type were found—one small, extracellular, pigmental form, and two half-grown intracellular forms, containing light-brown, dancing pigment granules.

From this time on the infant was kept under observation and treated with quinin grs. ii t.i.d. There were no cells and fever and the anemia and other symptoms disappeared in a few weeks.

There was no history of chills in the infant, but the mother said that from the second week it "got cold and had fevers" at times.

From the history and the high grade of anemia, he concludes that the infection was not a recent one, and that therefore the infant must have acquired the disease either in utero or soon after birth.

The writer excludes the latter possibility on the grounds that the house was not in a malarial neighborhood, that there were no mosquitoes to be found in or about it, nor any information as to their presence during the weeks between the birth of the child and the attack of malaria. Excluding this method of infection Peters, although admitting the possibility of error, concludes in favor of infection in utero.

Treatment of Trachoma by X-Ray Tube Exposure and by High-frequency Current.

Stephenson and Walsh (Medical Press and Circular) say that a new field in the treatment of trachoma has been opened up as a result of their work with the x-ray tube exposure and the high-frequency current.

Of four cases of trachoma treated with the focus tube the eyes appeared to be cured in two, while the other two gave every promise of a favorable result with a continuance of the treatment.

Every case showed a definite improvement from the first exposure. The immediate effect of the focus tube was to render the granular bodies redder and more prominent. This was followed by a stage during which rapid absorption of the granulations took place. From fifteen to seventeen exposures, each lasting ten to fifteen minutes, were followed by complete cure of the trachomatous affection.

In the use of the focus tube by unskilled or careless persons, great havoc to the deli-

cate structures of the eyes might easily follow.

After twenty-two applications by the high-frequency current a case of trachoma was apparently cured. A twelve-inch spark coil (Cox) was run from the main connection with a D'Arsonval high-frequency apparatus. One end of the solenoid was earthed, while the other was connected with a vulcanite electrode, with which the closed eyelids were gently massaged. A small brush discharge of about half an inch was obtainable from the electrode, and this probably would have acted upon the trachoma equally well without actual contact of the electrode with the lids. So far as can be ascertained this is the first application of the high-frequency current to the eye. By this means, as with the focus tube, more improvement has been effected in trachomatous lids than could have been reasonably expected under months or even years of ordinary escharotics.

The Radical Cure of Hydrocele.

Fangere (Medical Press and Circular, Feb. 18, 1903) says that hydrocele, usually styled idiopathic, is not the less provoked by a lesion of the epididymis, as a careful examination of the organ would show; spermatic cysts, traumatism, rheumatism, syphilis, etc., only act through the influence of the gland. He would not go into the pathological anatomy or the symptoms of the affection, but he said a few words on the different varieties of hydrocele and the treatment. Besides the multilocular, diverticular, chylous, and milky varieties of hydrocele, there is the infantile or congenital hydrocele and hydrocele in woman. The infantile variety is generally attributed to a traumatism during delivery; it gets well spontaneously.

Congenital hydrocele; it should be considered as a vagino-peritoneal hydrocele, as in reality it is an accumulation of peritoneal serosity in the tunica vaginalis. It is called congenital malformation, and not because it is itself congenital. The lesion is due consequently to an arrest of development. In the normal condition the testicle descends into the scrotum, carrying with it a fold of the peritoneum. It becomes invaginated in the inguinal canal like the finger of a glove, and forms in this way the tunica vaginalis. That canal is temporary, becomes obliterated by degrees, and finally in its place is found a thin cord called the ligament of the vaginalis. At birth the canal exists still, establishing a communication between the vaginalis and the peritoneum, but the obliteration is effected rapidly in a few days. When the obliteration is not effected, congenital hydrocele is more frequent between the ages of three and ten; spontaneous reducibility in the horizontal position or provoked by pressure is the fundamental character of that kind of hydrocele, that benign affection, which calls for treatment only because it favors the production of a hernia, is chronic in its evolution, and frequently disappears spontaneously, especially in the child, by obliteration of the canal.

Hydrocele in a woman consists in a serous cyst of the labium majus. As regards the treatment, numerous are the methods recommended; puncture followed by a modifying injection of tincture of iodine, iodoform and ether, nitrate of silver, or chloride of zinc. All these injections are more or less painful, and followed by considerable inflammation of the scrotum, the first and last named more particularly. The chloride of zinc solution is composed as follows:

Chloride of zinc,	grs. xvj.
Water	3 drachms.

After having removed one or two ounces of the liquid, from five to twenty drops of the solution should be injected by the ordinary hypodermic syringe. Inflammatory swelling is the result, but quickly subsides, and in two or three days the patient is cured. The method is much less painful than that of tincture of iodine.

The radical cure by operation is the best method of treatment, since antiseptics have so much facilitated the use of the knife. Several methods are employed—simple incision, partial resection of the tunica vaginalis, total resection of that membrane, and inversion as practiced by Doyen, and which he considers the best.

Arsenic in the Treatment of Chorea.

Pope (British Medical Journal) recommends the following principles of administration:

See that the tongue is clear before commencing treatment, and if not, give a mild mercurial purge and a stomachic mixture for 48 hours.

Put the patient on a bland and easily digested diet. For children this will naturally consist principally of milk food, but in adults it need not do so.

Give the drug in a much diluted form, and in the same dilution throughout. Pope usually gives ½ minims of the liquor arsenicalis B. P. in 1 oz. of water as the first dose to a young child, and when increasing the dose give a larger quantity of the same mixture instead of increasing its strength; for example, a child of 5 years would have 1 oz. three times on the first day, 2 oz. as frequently on the second, 4 oz. on the fourth, and so on as long as no unpleasant symp-

toms manifest themselves. The stomach is much more tolerant of the drug under these conditions. The smaller and earlier doses are usually given after meals, the larger ones taken during meals. There is no difficulty in getting even a young child to take 6, or even 8 oz. of fluid. In adults the treatment may be commenced by giving 2, or even 3 oz. of the mixture thrice daily as a dose. This is equivalent for children to an initial dose and daily increase of 0.025 gr. or 0.0018 gram of arsenious anhydrid thrice daily, the dilution being about 1-40,000 or 0.002 per cent. Do not discontinue on the first attack of vomiting. This is often due to accidental causes, and the patient may be able to go on for two or three days without a recurrence.

Increase the dose daily. A daily increase of 2½ minims to each dose is usually well borne. Keep the patient in bed throughout the treatment.

If the vomiting persists, discontinue the drug for 24 hours, and then give the same dose as the last.

Examine the patient very carefully daily for any sign of toxic action.

What must be aimed at is a form of shock action on the nerve tissues. The problem is how to get the greatest immediate action with the least risk of doing permanent injury, and this appears to explain why long-continued treatment with small doses fails while short treatment with large doses succeeds. Apart from the fact that the nervous substance gets used to the repeated small doses, a simple calculation shows that one may actually administer a much greater total amount by the former method than by the latter. A dose of 5 minims three times a day for a month amounts to a total of 450 minims or 4½ grains of arsenious anhydrid, while under this plan, in eight days the patient would receive 270 minims, or not much more than 2½ grs. With a cumulative poison such as arsenic this is no small gain.

Patients treated in this way usually show much improvement in the course of three or four days. The movements are more easily controlled, and if they have not entirely disappeared in seven or eight days the disease will almost always have become a trifling one, the patient being able to feed himself, take ordinary diet, and may be allowed to get up and take outdoor exercise. In some cases a return of the movements may take place, when the patient should be put back to bed, and the treatment resumed, commencing with 3 or 4 oz. of the mixture. On discontinuing the arsenic, he usually gives a mixture containing iron for a few days.

The Treatment of Epileptics.

Beach (The London Medical Lancet, February 28th, 1903) gives his observations on this subject as follows: Errors of refraction are often causative of epilepsy; by correcting the errors of refraction in one hundred consecutive cases of epilepsy, forty-nine were cured or relieved. A toxic cause of epilepsy has not yet been proved; in most cases there is neurotic inheritance and an exciting cause is only necessary to produce a fit. So that all exciting causes—indigestion, constipation, late hours, use of alcohol, tape worms, etc., should as far as possible, be removed. The amount of meat eaten should be limited, and in some cases meat should be forbidden altogether. As regards drug treatment, the author favors large doses of bromide, in the form of the combination of ammonium, sodium, and potassium. Where the fits occur at night a double dose should be taken at bed time. Bromide should be administered for two years after the last fit, in ordinary cases, and for three years in a few cases where circumstances render it necessary. Iron tonics and cod liver oil should be taken together with the bromide. The result of colony treatment is most gratifying. The general health is improved, the fits are diminished, and the colonists help to furnish a variety of food which is desirable in the treatment of the affection. Employment is particularly necessary, to keep the patient in the sunshine and to prevent his brooding over his ailment.

Fatty Degeneration of the Bladder.

G. F. Lydston (Journal of Cutaneous and Genito-Urinary Diseases) believes that fatty degeneration of the prostate and bladder is not generally recognized. Lydston gives the history of three cases, the important points in which are the occurrence of sudden retention in old or even middle-aged persons with no perceptible prostatic obstruction. The writer believes that alcoholism is an important factor, and that the acute retention found in these cases is frequently the result of fatty degeneration, producing a condition of atony. This fatty degeneration is in his opinion not limited to individuals who are free from prostatic disease, and he considers this condition one of the causes of failure of radical operation.

The author considers this condition as one predisposing to vesical rupture in case of tramatism. He believes further that when fatty degeneration does exist, a moderate degree of temporary spasm or congestion may be sufficient to bring about an acute retention, and that these degenerative changes may have an important bearing upon the value of radical treatment.

A Contribution to the Study of Cancer Mortality.

Templeman (British Medical Journal, Feb. 14, 1903) says: (1) That the death-rate from cancer as a whole during the twenty-five years under review has more than doubled, having increased from 7.27 to 16.92 per 10,000 of the population over the age of twenty years. (2) That this increase is greater at ages over forty-five, is common to both sexes, but more marked in the male sex, though the actual mortality is higher among females. (3) That in females this is chiefly due to an increase in malignant affections of the abdominal viscera. (4) That uterine cancer and cancer of the breast in females have increased, though not in any marked degree. (5) That cancer of the rectum also shows a slight increase in both sexes. (6) That in males the highest mortality is from cancer of the abdominal viscera. (7) That in males cancer of the mouth and upper digestive tract has also greatly increased. (8) That therefore cancer of regions which may be described as "accessible" has iucreased as well as that of parts which are not so accessible, and where the diagnosis is more difficult, but the increase in the latter is out of all proportion to that in the former class. (9) That during the same period there has been a great improvement in both clinical and pathological diagnosis, as well as in death certification, and consequently a considerable diminution in returns from such indefinite conditions as "old age" and "disease" of the various organs (without any specification of its nature). (10) That this must, to a considerable extent, have helped to swell the returns of death from "cancer." The writer does not think this sufficient to account for the great increase of cancer mortality. This increase is real and substantial, though not so great or alarming as the general public believe. To solve this problem of increase, we must have a more accurate knowledge of the etiology, and if parasitic in its nature, we must know something of the life history of the organism which gives rise to it.

Raw Cow's Milk in Infant Feeding.

Bartley (Brooklyn Medical Journal, March, 1903) says that after a careful clinical experience and extended laboratory experiments with cooked foods that owing to the changes brought about in the milk by the process of sterilization, modified milk is not an ideal food and that infants fed upon it continuously are prone to develop rickets and scorbutus.

In general the results of his investigations tend to show that Pasteurization and sterilization are harmful to the nutritive qualities of cow's milk. Bartley describes the effect of heat upon the various constituents of cow's milk and states that while the casein of human milk is completely dissolved in peptic digestion, that of cow's milk leaves a more or less voluminous residue of pseudo-neuclin or para-neuclin, which passes with the stools, and that this insoluble residue gives a nidus for bacteria and acts as a foreign body. In his opinion the bacterological examination of the milk is of the greatest importance, and the use of "Certified Milk" is advocated. Such milk when properly handled need not show more than 1,000 bacteria per cc. The use of whey as a diluent is advocated; it should be heated to 150 deg. F. before making the mixtures, to kill the rennin ferment. The same result may be achieved by the addition of a heaping teaspoon of bicarbonate of soda to the quart.

The Side Chain Theory.

Thayer (Boston Medical and Surgical Journal). The side chain theory of Ehrlich serves to outline in a diagrammatic sort of way the various phases of immunity. Among a number of processes that are concerned in the production of immunity three demand special attention. (1) Bacteriolysis. By this is meant the liquefaction of bacteria by the action of certain immune sera. This, the so-called "Pfeiffer phenomenon," was announced in 1894, by Pfeiffer. He demonstrated the fact as follows: A guinea pig immunized against cholera had living cholera cultures injected into its peritoneal cavity. It was found that at the end of forty minutes the vibrios had been dissolved by the immune serum. This is what is known as the bacteriolytic action of immune sera. (2) Agglutination. This phenomenon was first observed by Gruber, of Vienna, while working with the typhoid bacillus. It is the basis of the well known Widal test. Agglutinins are separate and specific constituents of the blood. During the agglutination reaction, agglutinin is absorbed by the bacteria. (3) Hæmolysis. By this is meant the hæmolytic that certain cera exert on foreign bloods. This action is due to the presence of a substance which has been named hæmolysin and is one of the so-called antibodies. Hæmolysis and bacteriolysis are strikingly analogous processes. Ehrlich's theory has to do with the production of antibodies. Antibodies can be produced only in the living body: it is the resistance of the living tissues that makes the production of the antibody, or antitoxine, possible. It was for the purpose of explaining how this occurred that the side chain theory was devised. The theory is as follows: When a

toxine is introduced into the living body it does not become bound to the functioning centre of the cells, but to certain side chains or receptors of the cells. The normal function of these receptors is to receive and appropriate food. 'The molecule of toxine, by its so-called haptophoric group, "catches on" to the side chains of the cells, and after a time, by the action of its toxophoric group, produces a defect in the cells. The pre-existing side chains having been diverted from their normal function, the cells produce new side chains. These proliferated side chains have the same affinity for toxines, after they have been cast off by the cells, as they had before; and so when present in the blood, they constitute an antitoxine. The difference in the way a toxine acts when introduced into the living body and the way in which a bacterium or a foreign blood cell acts, lies in this, that while there is a direct affinity between a toxine and the side chain, the bacterium or foreign blood cell can only be attracted through the intervention of another body which acts as a sort of fixer, or mordant, by means of which the cell ferment, which is normally present in protoplasm, is able to take a part in the production of an antibody. In the case of blood the fixer must have a double affinity, it must be attracted both by the red blood cells of the host and by the cells of the invading blood. Such a fixer has been called by Ehrlich an ambocepter, and he has named the ferment that is normally present in protoplasm, and without which the antibody can not be formed, the complement. All writers do not use the same nomenclature. The following terms are synonymous with amboceptor: preparative, sensitizer, immune body, intermediary body, and desmon. The cell ferment, or complement, is also known as end body, cystase, and alexine. Ehrlich contends that every toxine, every parasitic bacterium, and every variety of animal cell has its own specific affinity in side chains of the corporeal protoplasm; or, to state the same thing conversely, that the cells of the animal body are endowed with separate, specific receptors, having affinities for every kind of invading cell or poison.

Dimness of Vision in Diseases of the Kidney Characterized by Albuminuria.

Ramsay (Glasgow Medical Journal, December, 1902) divides these cases of dimness of vision into two classes: (1) Uræmic amaurosis, where the ophthalmoscope reveals no gross lesions in the retina. (2) Retinitis albuminurica, where marked retinal changes are present. Uræmic amaurosis occurs most frequently in those cases of Bright's disease in which cerebral symptoms predominate. It may exist alone, but is more frequently accompanied by headache and vomiting, and an attack is often preceded by a convulsive seizure. It may be said that it is due to blood poisoning brought about by waste products that ought to have been eliminated from the system by the urine. The resulting blindness is usually bilateral and complete, and though, as a rule, it passes off entirely after some hours, yet, in exceptional cases it may last for days.

Cases of albuminuric retinitis naturally divide themselves into two groups according as the lesions in the fundus oculi are inflammatory or degenerative. The inflammatory form is characterized by the occurrence of œdema, hæmorrhage, and inflammation, and is usually found associated with dropsy and with the presence of albumin in considerable quantity in the urine. The retinal lesions, however, are dependent neither upon dropsy nor upon the amount of albumin. It is rare, indeed, to find albuminuric retinitis during a first attack of acute parencymatous nephritis. The eye changes occur most commonly when an acute attack supervenes on previously existing chronic nephritis. Under favorable conditions it passes off leaving no trace, as is well illustrated in the phenomena observed in retinitis albuminurica during pregnancy. The kidney affection should be treated; for the eye changes themselves little can be done, except to advise the patient to avoid straining the eyes over fine work, and to protect them from exposure to bright light.

Tumors of the Bladder.

P. J. Freyer (The London Medical Lancet.)—Tumors of the bladder may be primary or secondary. The former alone are of importance to the surgeon. There are four classes of primary tumors, according to the tissue from which they originate or of which they are composed: 1. Epithelial tumors; 2, connective tissue tumors; 3, dermoids; 4 cysts. The latter two groups are very rare.

(1) *Epithelial tumors.* These are the most common bladder tumors. The most important as well as the most frequent variety is the papilloma, of which there are two typical forms: (1) Villous papilloma, and (2) fibropapilloma. Papillomata originate in an overgrowth of the normal mucous membrane and are analogous to cutaneous warts. The pedunculated villous papilloma consists of a fleshy mass, varying in size from that of a walnut to that of a cherry, attached to the bladder wall by means of a pedicle, and covered partially or entirely by villous processes or papillæ. There is no infiltration of the adjacent mu-

cous membrane or submucous tissue. The villosities vary greatly in length and shape. Papillomata are most frequently found in the vicinity of the ureteral openings. They vary in size from that of a pea to an enormous mass almost filling the bladder. They occur singly in the vast majority of cases. When multiple the number does not usually exceed three or four. A pedunculated growth may from time to time be carried during the urinary flow against the neck of the bladder, and block the passage, giving rise at first to hypertrophy, and eventually to atrophy and pouching of the wall of the bladder. Cystitis is a not infrequent sequela of the presence of a tumor in the bladder. But simply because a growth is seen by means of the cystoscope to be covered with villi, it is not necessarily benign, for malignant tumors may be villous. Intermediate between the typically benign papillomata and malignant tumors comes a type known as "transitional." They have a tendency to recur after removal, becoming more and more fleshy, with infiltration of the mucous membrane, and the patient eventually dies of true cancer. Adenomata rarely if ever occurs in the bladder. Epithelioma as a primary disease of the bladder is not uncommon. It is rare before the age of forty years, and originates in the mucous membrane as a warty growth or an ulcer. The disease advances rapidly, soon involving all the tissues of the bladder.

2. *Tumors of the connective-tissue type.* (*a*) Fibromata arise from the submucosa or fibrous tissues in the muscular coat. They are rarely pedunculated, are usually single, and are almost exclusively found in adults. As a rule they spring from the base of the bladder. (*b*) Myxomata are soft gelatinous polypi, similar to nasal polypi. They occur only in children, may be sessile or pedunculated, and are generally multiple. (*c*) Myomata are composed mainly of unstriped muscle fibres, interspersed with scanty fibrous tissue. They correspond to uterine myomata. (*d*) Sarcoma is the most common of the tumors of the connective tissue type found in the bladder. It may occur at any age, arise in any part of the bladder, and is invariably sessile.

Symptoms and Diagnosis. Hæmaturia is the earliest and most important symptom of bladder tumor. If it is painless the growth is probably benign. Early in the disease there may be long intervals between the attacks of bleeding, but as the disease progresses they increase in frequency and intensity. Subsequently the urine will never be quite free from blood. The urine is not uniformly mixed with blood, and clots are frequently present. The hæmaturia is generally independent of position and motion. Profuse hæmaturia is rare in connection with stone, whereas with tumor it is the rule. Soft growths bleed more profusely than the dense and hard varieties. Increased frequency of micturition occurs sooner or later with all vesical growth, and does not disappear until the tumor is removed. Pain is nearly always present in the later stages, sessile and infiltrating growths being more painful than pedunculated ones. The pain is usually referred to the perinæum or along the urethra. Shreds of tumor tissue may be found in the urine, examination of which will give important information. Pus is present in the urine when cystitis occurs. The one means of diagnosis now employed is the cystoscope, which provides us with a scientific and accurate means of arriving at a definite diagnosis as to the presence of a tumor as well as to its size, physical characters, position, and form of attachment to the bladder wall, as also to a fairly accurate forecast as to its nature.

Treatment. The only line of treatment offering a prospect of permanent relief consists in complete removal of the growth, by means of suprapubic cystotomy.

The Aetiology of Endocarditis, with Especial Reference to Bacterial Agencies.

Sanford Blum (American Medicine) reviews the history of endocarditis and particularly the development of the study of its bacteriology. Blum mentions one case of bacterial endocarditis due to the *Bacillus pyocyaneus*, which is the first case of the kind in an infant so far on record. He ends the article with the following summary: (1) Bacterial agencies are active in the causation of endocarditis. (2) The presence of bacteria in the circulation is not alone a sufficient cause; but a predisposition—*a locus minoris resistentiæ*—must exist in order for them to secure a foothold. (3) Not all bacteria are capable of producing an endocarditis, but in general those that are pathogenic for the individual may cause endocarditis. (4) there are other causes of endocarditis besides bacteria.

Endocarditis may be classified according to its ætiology as follows: (1) Congenital and infantile endocarditis may be due to development, to reparative processes, as suggested by Parrot, and to other causes (unknown). (2) Endocarditis due to known bacterial agencies, *e. g.*, streptococcus, staphylococcus, tubercle bacillus, pyocyaneus bacillus. (3) Endocarditis of probable bacterial origin, associated with definite diseases presumbly of a bacterial nature, but of which the bacterial agents are still undiscovered, *e. g.*, rheumatism, chorea, syphilis, exanthems, etc. (4) Endocarditis

due to mechanical or chemical insults, *e. g.*, blows, strains. noxious excretory products in the blood, alcohol, atheroma.

Bacteria in Butter.

C. J. Lewis (Scottish Medical and Surgical Journal) says that the organisms present in butter may be regarded as likely to be of the same varieties as those in milk; but experiment shows that butter is not so liable to contain pathogenetic microbes. Prausnitz estimates that butter sometimes contains as many as ten to twenty millions of germs per gramme. Laser found that Vibrio choleræ may remain alive and virulent in butter for thirty-two days, and the typhoid bacillus for three or four weeks. The tubercle bacillus finds a suitable medium in butter, in which it may remain virulent for twelve days according to Heim, and even up to ninety days according to Moore. Butter made from the milk of a cow with tubercular udder produced the disease in a rabbit; and though there is no evidence that tubercle has been spread to man by butter, there is ground for suspicion in the fact that in Germany some 30 per cent. of the samples analyzed contained the bacillus. Klein, however, recently tested samples of butter from Normandy, Brittany, Ireland, Austria, France, and Dorset, using as much as a quarter of a pound of each of twelve samples, and failed to find in any instance the tubercle bacillus or either variety of the B. pseudotuberculosis. The staphylococcus aureus was present, however, in one sample.

The Treatment of Eclampsia.

Maygrier (Medical Press and Circular) says that formerly eclampsia was considered as a neurosis, but to-day is more rightly known as an autointoxication of the organism.

The first symptom being frequently albuminuria, it is necessary to place on milk diet every pregnant woman whose urine is albuminous, and enjoin rest in bed. This régime continued eight days places the patient beyond the reach of the malady. Once eclampsia is declared, the first thing to do is to remove from the organism the toxic principles and to calm the nervous excitability. The first indication is filled by bloodletting—from ten to twelve ounces should be taken as rapidly as possible. The writer is in the habit of injecting immediately afterward, hypodermically, an equivalent amount of artificial serum.

The agitation and excitability are best controlled by a few whiffs of chloroform and an enema of chloral. The Germans recommend morphine, but it should be used with caution.

Several authorities advise emptying the uterus with all possible celerity, but such is not his opinion, as the eclampsia will persist after delivery, and on the other hand the pregnancy could continue after the attack. Only two complications could warrant intervention—anuria or a rise in the temperature. Beyond those conditions the pregnancy should not be interrupted. But, on the other hand, if the labor has already set in, every means should be employed to deliver the mother as quickly as possible, forceps, version, or extraction, as the case might be,

Spontaneous Rupture of the Heart, with a Report of Seven Cases.

Hamilton, (Philadelphia Medical Journal.)—Spontaneous rupture of the *normal* human heart rarely if ever occurs, and no cases have been placed on record since the microscope has come into use and accurate diagnoses have been made possible. The causes of heart rupture are: (*a*) predisposing—pathological conditions of the heart, and (*b*) exciting—some muscular or physical strain. The condition usually occurs in people past sixty years of age, and is more frequent in men than in women. The rupture may be either partial or complete, but the heart muscle is rarely torn squarely across in large bundles, it is usually dissected apart by the burrowing blood. The most common seat of rupture is in the wall of the lest ventricle, on the anterior surface, a little above the apex and a little to the left of the sæptum. The heart muscle is generally found to have undergone fatty degeneration. The symptoms vary according to the rapidity with which death occurs, and they may accordingly be considered under three heads. (*a*) Death sudden. There may be no symptoms, the patient may die during sleep; again the patient may fall dead with only a cry or a groan. (*b*) Death gradual. This is rare. In such cases there may be intense precordial pain, shortness of breath, of feeling of impending death and of something having given way in the heart. The pulse becomes small and feeble, at times irregular, and finally imperceptible; the face may be pale and covered with cold sweat; vomiting and even diarrhœa may occur. The signs of hæmorrhage and effusion into the pericardial sac, when they can be made out, are of great diagnostic importance. (*c*) Death either sudden or gradual after an amelioration of the initial symptoms. There is at first great pain but this gradually grows less. The rapidity of the heart beat is increased, but no increase in the area of cardiac dulness can be made out, and in a little while the patient seems to improve greatly and may appear to have

completely recovered. After the lapse of a few hours or days, the symptoms return in a more violent form, and death occurs soon afterward. The diagnosis is generally only made at the autopsy; if it should be made before, then the prognosis would be unfavorable. It seems hardly necessary to add that treatment is of no avail. The seven cases reported and a bibliography conclude the article.

Cerebral Syphilis.

Brownrigg, (Boston Medical and Surgical Journal). All the lesions of cerebral syphilis are essentially inflammatory in character and the chief changes occur primarily in the blood vessels and secondarily in the brain and meninges. Associated with the inflammatory reaction there is a peculiar exudation or infiltration, which is often distinctly localized and constitutes the gumma. Besides this lesion, there is usually an obliterative endarteritis, due to a proliferation of the subendothelial lining of the blood vessels. Besides these primary lesions, there are two degenerative diseases which chiefly affect the nerve cells of the brain or spinal cord, and which are most commonly produced by the remote effects of the syphilitic poison in the blood. These diseases, usually called post-syphilitic degenerations, include clinically locomotor ataxia and paresis. The diagnosis of brain syphilis is often a difficult matter, and should depend more on the character and grouping of the symptoms than on their mere presence or absence. The chief symptoms may be grouped as follows: (1) Headache and vertigo; (2) nausea and vomiting; (3) optic neuritis; (4) cranial nerve palsies or paralyses; (5) apoplectic attacks, or more gradual attacks of somnolence or coma, with partial hemiplegia; (6) irritability and general mental failure; (7) polyuria and polydipsia; (8) marked remittent character of all symptoms, and their changeability. Cerebral syphilis usually appears about three years after the primary infection, but headache, facial paralysis, and optic neuritis have been known to occur as early as one month after the primary sore. The prognosis is always indefinite. The cases in which the brain symptoms occur early, usually do better than those in which the brain is involved late in the disease. In the cases that end fatally the patients usually live from six months to three years. The treatment should be general as well as specific, and on account of liability to brain involvement in every case of syphilis, patients should be warned to take life easy and avoid all mental strain and worry, and to refrain from the use of lcohol. The mixed treatment should be begun early in the second stage, as potassium iodide seems to give the best results where the brain is involved. After brain symptoms have once set in the iodide should be pushed. One patient took as high as 1,500 grains of the iodide a day with apparent benefit.

Rheumatoid Arthritis as a Cerebrospinal Toxaemia.

Jones (Edinburgh Medical Journal) says that the term "rheumatoid arthritis" should be cast from medical nomenclature. As to the nature of the disease, the author allots causality to the inevitable microbe and its toxines, and grants to the nervous system the minor role of being the medium through which and by which the clinical phenomena are colored. Kent Spender and others attached great importance to the vasomotor phenomena. The author considers them one of the most salient features of the disease. The writer says that these conditions of local syncope and asphyxia—most obvious in the extremities—are undoubted Raynaud's disease. Dr. Jones calls attention to the relationship that he believes to exist between the joint changes and the vasomotor phenomena. It seems to the author that in the early stages of rheumatoid arthritis we have a constant recurrence of cycles; and this, in his opinion, in time, as it were, wears out the particular segment affected. This is the important time in the history of the disease—the time of small things. In the muscular sphere, the first stage appears to be a condition of undue irritability. Sir Thomas Barlow says that cramps occur in Raynaud's paroxysms, and also that fine movements are with difficulty performed. He believes that the increased excitability of the nerves has some relation to the joints affected, insomuch as he has been able to find it in one limb and not in the other. Passing out of this stage, we find muscular atrophy and contractures superene, and in some cases paralysis and loss of knee joints.

The author suggests that in cases of early rheumatoid which have followed quickly on a history of gastric ulcer, dilatation of stomach, or chronic diarrhœa, would it not be just as well if we tried the effect of stomach lavage or intestinal irrigation? If any such treatment is to do good, its adoption at an early stage of the disease is indicated, during that stage when all the phenomena are subject to remissions and exacerbations. Later on, when trophic phenomena color the clinical picture, it is too late to do anything but palliate. It seems to the author that the first stage, with its fluctuating temperature, rapid wasting, and vasomotor phenomena, etc., is the true rheu-

matoid; the features of the later stage are simply secondary to changes induced in the cerebrospinal axis by the previous vascular disturbances with sequential failure in nutrition of the nerve centres. Under certain circumstances thyreoid feeding has some chances of being successful. Thermal waters, massage, electricity, etc., are adjuncts, but, as such, are valuable.

The Prognosis of Tuberculous Peritonitis in Children.

Sutherland (Medical Press, Jan. 28, 1903) says that the prognosis in this condition is good.

When tuberculous pleurisy is present the prognosis is still favorable.

The prognosis is rendered less favorable in the case of (*a*) a strong family history of tuberculosis; (*b*) an infancy passed under bad hygienic and dietetic conditions; (*c*) a constitution of feeble resistant power; or (*d*) a history of severe infective illness in early life.

The prognosis is rendered less favorable in the presence of one or more of the following symptoms: continuous pyrexia, rapid wasting, persistent diarrhea, rapid pulse, and recurrent acute exacerbations.

The prognosis is rendered less favorable in the presence of one or more of the following local complications: (*a*) tuberculous ulceration of the bowel; (*b*) extensive caseation of the mesenteric glands or of tuberculous masses; (*c*) localized suppuration from infection through glands of the intestine; and (*d*) obstructive symptoms from bands of matting of the intestine.

The prognosis is bad in the case of the following complications: (*a*) the rupture of a suppurating gland or the perforation of an intestinal ulcer into the peritoneal cavity; (*b*) pulmonary tuberculosis; (*c*) tuberculous meningitis; and (*d*) general miliary tuberculosis.

In tuberculous peritonitis the prognosis is not appreciably affected by simple laparotomy.

The Surgical Treatment of Cirrhosis of the Liver.

Greenough (American Journal of the Medical Sciences) concludes an article as follows:

(1) The condition known as biliary cirrhosis, with enlarged liver, jaundice, and fever, and without ascites, is accompanied in a certain proportion of cases by an infection of the bile-ducts. The drainage of the bile-ducts by cholecystostomy is a proper operation for the relief of this condition, when the evidence of infection is present and symptomatic treatment has failed to effect relief. (2) Of 105 cases of liver cirrhosis which presented the symptoms of ascites, 42 per cent. were improved and 58 per cent. not improved by Talma's operation or one of its modifications. The mortality within thirty days was 29.5 per cent. Nine cases were improved in health two years after the operation. (3) The nine cases of continued relief presented no marked differences from the general character of all the cases. (4) The cases in which the liver was enlarged gave a lower mortality and a higher percentage of improvement than cases of atrophic liver. (5) Cases of suture of the omentum between the layers of the abdominal wall gave a lower mortality and a slightly higher percentage of improvement than cases in which only peritoneal surfaces were brought in contact. (6) Drainage increases the danger of septic infection and peritonitis, and is to be avoided. If necessary, tapping may be done after the operation. (7) The presence of adhesions or perihepatitis is of good prognostic import as regards the success of the operation. (8) The number of tappings before the operation and the presence of edema of the feet and legs are of less prognostic importance than the general condition of the patient, the size of the liver, and the functional activity of the liver cells. (9) Talma's operation, or one of the modifications, is of proved benefit in a certain limited number of cases of liver cirrhosis, primarily for the relief of ascites, and secondarily for the relief of other symptoms of portal congestion. (10) The dangers attending the operation are mainly due to the weakened resistance of the patient rather than to the operation itself. The selection of cases suitable to operation demands more judgment than has been exercised hitherto. (11) The operation is not indicated in cases of ascites due to causes other than cirrhosis of the liver. (12) The operation is contraindicated in the presence of renal or cardiac disease, and when good evidence does not exist that sufficient functional liver tissue remains to maintain life. It is also contraindicated when complications exist sufficient in themselves to make the result of operation uncertain.

On Reflex Convulsions in Growing Boys and Girls.

E. Smith (The London Lancet) calls attention to the fact that convulsions, due to pure reflex worry, may be found in children as late as the eleventh or twelfth year. There is usually a neurotic family history, and there may be a history of convulsions in infancy. Such children are usually high-strung and excitable. The cases are apt to be classed as epileptic and treated accordingly, but premonitory symp-

toms common to all the attacks can often be detected. The seat of trouble is usually the alimentary canal, and the irritation is excited by undigested and fermented food. The children suffer from languid circulation and cold feet. As a rule, the nervous attacks are separated by long intervals; in most cases they are single convulsive seizures, in others they fall into groups. The isolated attacks are probably purely reflex. The special feature lies in the fact that the attacks invariably coincide either with a digestive disturbance, or with some other form of local irritant, and cease at once when the local condition is relieved. The irritant need not be violent—for instance in children with adenoids, the addition of a post nasal catarrh may be enough to determine the onset of convulsions. The author cites a number of cases illustrating the above-mentioned facts.

The Best Method of Administering Quinine

McElroy, (Memphis Medical Monthly).

In speaking of quinine as an immunizing agent, Manson is quoted with approval: "The reputed prophylactic effect of quinine is but a phase of its therapeutic action; it is the application of the drug to the parasite, and not an immunizing of the body against the entrance of the parasite, one has to deal with; therefore one may confidently expect that if it will cure a malarial infection, it will prevent its development." Unquestionably if the quinine is present in the blood at the time the parasite is introduced it may prevent, but it is evident that it is much a matter of chance if the quinine is there at that time. It is, therefore, an uncertain prophylactic. It is rare that the spring tertian or the estivo-autumnal parasite as seen in our climate responds to five grains of quinine three times a day. The practice of giving small amounts of quinine with breakfast, dinner and supper, with a view to prophylaxis, is not effective and may be injurious, owing to the disturbance of digestion and the consequent anemia. It also interferes with the diagnosis of malaria, as after the administration of quinine there may be an inability to identify the parasites in the blood. If malaria has developed, the administration of 15 grains of quinine once a week is effective in preventing the return of the paroxysms.

Quinine is a valuable therapeutic test. If administered to a malarious patient in whom the fever comes at fixed intervals, it usually causes an interruption of the cycle, and this is nearly as diagnostic of malaria as is the finding of the parasite. In the estivo-autumnal infections, five grains should be given every four hours. After the administration of 30 or 40 grains the fever will remain down for several days. Quinine is of value in diagnosis in malarial districts, even where the microscope is available, as in some cases the malarial parasite is not found in the peripheral circulation, or it may be sought for patiently and not found, owing to the fact that very few parasites are present.

The sulphate of quinine is generally used because of its cheapness. To obtain prompt physiological results it should be given dissolved. The hydrochlorate is the preferable salt of quinine, having a larger percentage of quinine, and is less bulky. It is adapted for hypodermic use.

In regard to the subcutaneous use of quinine, the writer addressed a number of physicians living in the malarial districts of the South as to their experience with its hypodermic use. In the main the replies showed a confidence in the method. When the quinine is dissolved in normal salt solution and is not too concentrated, about ten grains to the half-ounce of solution, then the results are good. When the solution is concentrated or has an acid reaction, the results are *nil*. Twenty grains of bimuriate of quinine and urea and one pint of normal salt solution is an excellent mixture. One physician regards the hypodermic method as the only proper treatment of the pernicious forms of malaria.

From the replies received it appears that the intravenous injection of quinine is not often employed. The writer has used it three times with good effect. His experience is similar to that of Bacelli, who has successfully employed this method in the comatose forms of pernicious fever.

Its administration by the rectum has been so unsatisfactory that it has been discarded.

Rupture of the Uterus.

Lafourcade (British Gynecological Journal) describes a case of a multipara of forty-two, who during a tardy labor was seized with violent pain and a feeling of something giving way in her abdomen; the uterine contractions ceased, laparotomy was immediately performed, the child extracted from amidst the intestines, and the uterus amputated above the vagina. The woman was well in a few weeks. The rupture extended for 12 or 13 centimeters between the folds of the left broad ligament, and for 5 or 6 centimeters above the isthmus along the anterior face of the uterus. The uterine tissue seemed to be quite normal save for some nodules of embryonal cells, perhaps to be attributed to slight interstitial myositis, which Richelot, in commenting on the case, said was very little to account for such a formidable accident in an apparently healthy woman who had already had four normal confinements.

The Control of Consumption by the Public Health Authority.

Kirkpatrick (Dublin Journal of Medical Science, January) believes that the question of the proper control of consumption is one of very pressing interest to Irishmen, because Ireland occupies the unique and unenviable position of still having an increasing mortality from tuberculous disease. In the year 1900, phthisis caused 10,076 deaths, out of a total of 87,606, or a rate of 225.6 per 100,000 of the estimated population. He alludes to the fact that in New York city the death rate from phthisis has been reduced by over thirty per cent. since the adoption of preventive measures some years ago, and that similar gratifying results have been obtained elsewhere. He quotes with approbation the scheme drawn up by the city council of Manchester, England, in the year 1899. The main lines of this scheme may be grouped under the following heads: (1) Voluntary notification of consumptive cases. (2) Education of the public in general, and of the patient and his friends in particular, in the nature of the disease. (3) Treatment of the patient's surroundings. (4) Supervision. (5) Provision of isolation hospitals. (6) Protection of the food supply from contamination by the tubercle bacillus. The writer outlines the precautions which other countries are taking against the spread of phthisis, and sketches a plan which he considers suitable for Ireland to meet the pressing wants of public health. The author formulates a practical, rather than an ideal, plan, considering that the poverty of the country precludes the possibility of adopting any scheme which would involve it in great expense. He points out, however, that the money so expended is for the advancement and improvement of the race, and if, through the expenditure, the mortality and morbidity from phthisis can be reduced, a real economy will be effected in the national wealth. Vast sums of money are being spent on the education of the people, which are no doubt necessary for the advancement and improvement of the community; but the very existence of the race in the future will depend upon the success of efforts in preventive medicine.

The Radical Cure of Inguinal Hernia with Local Anaesthesia.

Bodine (Medical Record, February 14th, 1903) reports forty-eight cases of inguinal hernia operated on under local anæsthesia. The patients ranged in age from sixteen to seventy-six years, and in five the hernia was strangulated. In five cases the omentum was ligated and excised without pain and as much as sixteen ounces were removed in one case. In another case an adherent appendix was amputated. In eighteen cases there was absence of pain, in twenty-eight the pain was moderate, and in two it was acute when the neck of the sack was ligated. The author is almost convinced that cocaine should always be used in hernia operations. The writer believes that with cocaine a herniotomy is practically without danger. He describes the distribution of the three important nerves that have to be blocked in order that the operation shall be painless. In the order of their importance they are the hypogastic branch of the iliohypogastric, the inguinal branch of the ilioinguinal, and the genital branch of the genitocrural. Both these last named nerves may be absent, and not infrequently they cannot be found, yet with the aid of a small amount of infiltration anæsthesia, this difficulty is easily surmounted. The technics of the operation is minutely described, as well as a slight modification of the ordinary Bassini operation, which is made necessary by the impossibility of ligating arteries without pain. In the forty-eight cases reported the maximum amount of cocaine used was half a grain.

On Certain Forms of Menstrual Suffering, and the Action of Permanganate of Potash Therein.

Stephenson (Scottish Medical and Surgical Journal) uses the term menstrual suffering, because it embraces all forms of derangement of the function, does away with the limitation of such terms as amenorrhœa, and includes affections of distant organs associated with the rhythmic changes of the menstrual cycle. The writer's experience of nearly twenty years is that this drug gives more direct and reliable results in menstrual troubles than any other. He describes various cases, one of which had suffered from amenorrhœa for fifteen months; another from dysenorrhœa and vascular weakness with distension of the veins in the leg; a third from dysmenorrhœa, menstrual headaches, distended veins, and eruption on the face; still another had chlorosis at eighteen, phlegmasia dolens at twenty, for four years dysmenorrhœa, menstrual headaches and varicose veins. In all of these cases, permanganate was ordered in the form of pills, gr. ii. ter in die. In the great majority of cases, headaches are amenable to the action of manganese. Sometimes the headaches are of the intermenstrual type. In some cases it takes five, six, and seven months before the beneficial effect is fully secured. It is a mistake to prescribe it as if it were an emmenagogue a day or two only before an expected period.

Conservative Surgery of the Tubes and Ovaries.

Florence N. Boyd (British Journal of Obstet., March, 1903) finds that the consensus of opinion from the indications given by the operators of the widest experience, that conservative operations on the tube and ovaries may be practised: (1) For new growths of benign character, for myoma and fibroma of the tube, simple cysts dermoids and fibroids of the ovary and parovarian cysts; (2) the tube and ovary ought not to be sacrificed as a matter of convenience to the operator. It is contraindicated in malignant or in papillary disease; (3) for chronic oophoritis and cystic degeneration; (4) for hematoma of the ovary and tube (perhaps hardly a consensus of opinion here); (5) for inflammatory diseases of the appendages, where the acute stage has subsided, provided that there is no suppuration in the pelvis or in the ovary that the contents of the tube are serous or hemorrhagic, and prove sterile on immediate coverslip bacteriological examination (Schauta, Wertheim), and that the inner end of the tube is patient. For conservation to be rational it is essential that part of the ovary should be capable of function; if both ovaries have to be entirely removed, there is no reason for retaining the tubes; the state of the ovaries must govern the method of procedure; (6) conservative operations on the tubes should be limited to the child-bearing period. Up to the present it is uncertain whether an ovary, the seat of a small cystoma, may be safely resected or whether a tube, dilated by old sterile pus can be safely opened up. Some of the American surgeons show special boldness in the presence of pus. With regard to the tubes, the majority of conservative operations are undertaken when the abdomen has been opened for gross disease of the appendages upon one side; and less advanced tubal disease has been revealed. In considering the method to be adopted in dealing with the tubes, certain points stand out: the artificial ostium should be wide enough to allow of later contraction, if necessary, by slitting the tube longitudinally. Provision should be made for eversion of the mucosa in order to obtain as far as possible the conditions present in the normal ostium abdominale. Care should be taken, by suture or otherwise, to leave the new opening in the tube in juxtaposition with the ovary. The energetic disinfection of the tubes by antiseptics practised earlier, is unnecessary if the cases are suitably chosen, and all measures likely to irritate the peritoneum are to be avoided. It is still undecided whether resection or igni puncture of the ovary is the best operation for chronic oophoritis and cystic disease. That resection may be followed by adhesion in some cases has been proven by observation. We are not yet in a position to determine how far the technic adopted (*i. e.*, the kind of suture used and the method suture) is responsible for such adhesions.

The Nature of Hydrosalpinx.

Clement White (British Journal of Obstetrics, March, 1903) says that in nine instances the old view that hydrosalpinx is a stage of salpingitis cannot be disproved, for the condition followed extrauterine pregnancy of gonorrhea. In eight of these the balance of evidence was in favor of the closure of the ostium of a healthy tube by the peritoneum in the way suggested by Dr. Cullingworth. Ten of the cases were in the writer's opinion, a retention cyst, a tumor sui generis, independent of neighboring organs and due to faulty development. In one case the condition seemed to be due to peritonitic closure of the tube following extra-uterine gestation. Uncomplicated cases of hydrosalpinx are rare. Some definitely are symptomless until some accident intervene, such as sudden enlargement of the tumors, or pelvic peritonitis, or growth of another tumor. Pain in the hypergastrium and vagina are by far the most prominent symptoms. There is some pain at the end of menstruation. Dyspareunia and dyschezia are fairly common, as is congestive dysmenorrhea. Menorrhagia is exceptional. Menstruation is scanty in cases of hydrosalpinx; in fact, in one case, where there were frequent attacks of pelvic inflammation, is almost the only marked exception to this rule. This single point would make one chary of accepting the view that hydrosalpinx is merely a stage of salpingitis. Irregular and excessive menstruation is one of the most common and constant symptoms of salpingitis. That hydrosalpinx is a retention cyst, most authors agree. That some cases are little more than a catarrhal salpingitis with an excessive amount of fluid retained, the author is disposed to admit. That some are due to an edematous condition in the final stages of kidney disease is also probable. That some are due to peritonitic closure of a healthy tube seems also to be true. But many of the cases where the ostium is such as is commonly described as due to salpingitic closure of the tube, are cases of impervious ostia due to faulty development. It is in this class of case that Mr. Bland-Sutton has pointed out that a small dedunculated cyst is often present, whether due to a hydatid of Morgagni, or Kobelt's tube he does not know. He says that the clinical history in too large a proportion of his

cases to be negligible is not the history of a salpingitis, is often marked by an absence of symptoms, and the symptoms which are present are such as are found in cases of mal-development, namely, sterility, pain, scanty menses, dysmenorrhea, dyspareunia.

Permanent Effects of the Sanatorium Treatment of Phthisis Among Members of the Working Classes.

Reiche (Edinburgh Medical Journal) says that in Germany insurance against sickness is compulsory, and the insurance companies find it more profitable to pay for the cure of early cases of phthisis than to continue paying the claims for sickness. He is the examining physician for the Land Insuring Company of the Hanseatic towns. Up to the end of 1901 he had examined for it 2,273 patients. Of these 1,571 underwent cures of over four weeks. The after-histories of these cases are known, as the insurance companies keep in touch with the individual members, and periodical inspections are made. At the inspection made at the end of 1901 of the fifty-six cases treated in 1895, fifteen had since died, not necessarily of tubercle. Of the remainder, twenty-nine (= 56.7 per cent.) were well and able to do hard work, and eight were totally unfit for work. In 1896, 140 cases were treated. Of these, twenty-four have since died, while ninety-one are fully able and six totally unable to work. In 1899 the figures are 204 cases, with twenty-nine deaths since—138 fully able, twenty-three partially able, and fourteen totally unable to work. Altogether during the years 1895 to 1900, of 1,228 cases treated, 13.1 per cent. have since died, while 62.1 per cent. are able for full work, 16.3 per cent. are able for limited work, and 8.5 per cent. are totally unable to work. He thinks there is no doubt that they were all genuine cases of phthisis. These cases are not specially selected as early cases likely to profit by the treatment. On the other hand, even before the cure, a considerable number of the cases were still able to work, so that it cannot be claimed that treatment rescued them from total inability to earn a livelihood; but in most cases this calamity was imminent.

The results obtained by the treatment were economic restitution rather than absolute medical cure. In fact, in only 118 of the cases had all the objective lung symptoms disappeared at the end of the cure, and of these 60 per cent. developed new symptoms in the course of time. From the analysis of 315 cases not subjected to sanatorium treatment, Reiche comes to the conclusion that the average course of fatal phthisis lasts forty-three months, How useful the sanatorium treatment is, is shown by the fact that 53 per cent. of the cases treated in 1895 are still able to do full work. In the latter part of this paper Reiche points out that a true clinical cure is very rare, but emphasizes the excellent economic results obtained by the sanatorium treatment, which in many cases causes the tuberculous processes to become quiescent.

Etiology of Tuberculosis.

Lathan (The Edinburgh Medical Journal) concludes an article as follows:

(1) Hereditary tuberculosis is so rare as to be a negligible factor.

(2) It is not proved that tuberculosis patients hand down to their children tissues which are especially receptive to tuberculosis.

(3) Tuberculosis always results from a preexisting case of the disease, and the bacilli are conveyed by the mouth spray, by the expectoration or other discharge, and by means of foodstuffs, more especially milk.

(4) It is improbable that infection often takes place from air respired through the nasal passages.

(5) The tubercle bacilli, whether the infection is through the air, or through food, enter the new host by the mouth, in the majority of cases.

(6) The bacilli may then be destroyed by the natural defensive actions of the body in the ailmentary and respiratory tracts, or they pass into various parts of the body in the following ways:

(*a*) By direct inhalation into the alveoli of the lungs.

(*b*) By being brought in contact with the mucous membranes common to the respiratory and alimentary tracts, such as the tonsils, and then by passing through these mucous membranes, either with or without local changes, to the lymphatic vessels, and so to the cervical, tracheal, bronchial, or other nodes. From these nodes the bacilli may pass either, (1) by direct continuity, (2) by lymphatic vessels to the neighboring nodes, as, for example, from the cervical group to the mediastinal, (3) by some mechanism against the lymph stream, as, for example, from a tracheal node to the apex of the lung; or (4) by the blood stream, owing to direct ulceration into a blood vessel.

(*c*) By being carried to the stomach and intestines. The bacilli, if not destroyed in these situations, may then pass into the lymph stream, and so cause tuberculosis of the mesenteric nodes or of more distant parts.

(7) The spread of tuberculosis within the human body is not by the blood stream,

save when generalized miliary tuberculosis is found.

(8) The spread of tuberculosis within the human body is by the lymphatic vessels and lymphatic lacunæ. This fact may explain why the lungs are chiefly affected in the adult, the bronchial nodes in the young child, as the age at which the change begins corresponds to the age at which a considerable alteration in the lymphatic paths in the neighborhood occurs, owing to the involution of the thymus.

Sarcoma of the Middle Ear and Mastoid.

Dench (Archives of Otology) describes the case of a child one and a half years old, who had come under his care three weeks previously, giving a history of having had a slight water discharge from one ear for ten days. Examination of the eyes showed paralysis of the right external rectus muscle. The canal of the ear was filled with a tumor covered with thin epithelium. This bled easily, and a small piece was detached. The report of the pathologist showed that the tumor consisted of simple granulation tissue covered with epithelium. The child was sent to the hospital, and two days later the typical mastoid operation was done. On exposing the bone over the mastoid there was found a cauliflower-like mass occupying the region of the antrum. This was removed, and the bone was found to be softened in every direction from the site of the growth. All soft bone was removed, and in so doing the dura over the roof of the tympanum was exposed. There was free bleeding, and it seemed on examination the growth extended to the apex of the petrous pyramid, and that involvement of the dura at this point accounted for the paralysis of the sixth nerve. The growth was at first thought to be benign, but further examination showed it to be an epithelial sarcoma. The child has since done well, the wound has closed, and there has been some improvement in the power of the sixth nerve. There is, however, evidence of recurrence of the growth at the tip of the petrous pyramid and in the canal. A microphotograph of the growth was shown.

He expressed the opinion that it would probably die; however, he has decided, if the patient's condition continues as at present, to make a thorough extirpation of the growth by a modified Gasserian ganglion extirpation,

Puerperal Eclampsia.

Abrams, (American Jour. of Obstet., January, 1903) says that is now conceded that the eclamptic symptoms are dependent upon some form of auto-intoxication, and it seems quite certain that this condition is brought about, at least in the first instance, by insufficient metabolism and subsequently by insufficient secretion. The condition is so rare that only those of large clinical experience can see many cases. It is most common from the seventh to the ninth months. The relation of the thyroid to eclampsia is very interesting. An enlargement of this gland takes place in primipara about the sixth month, and in multiapara about the fifth. The function of the thyroid is to regulate metabolism. Lange has demonstrated the enlargement is physical, or rather physiological. In twenty out of twenty-five cases of pregnancy, in which enlargement of the gland did not take place, albuminuria and convulsions did develop. Herzfeld holds that pressure on the ureters is an etiological factor in the causation of the disease. In his 81 fatal cases, all showed pathological changes in the uropoietic tract. The effort to prove that eclampsia is identical with uremia, has gone down as "not proved." However, it is the incomplete urea in the blood that (in the form of toxins) doubtless causes the convulsions. Therefore the diminution of the urea in the urine ought to be to us an indication that the toxins are being retained. The urinary tract must not alone be watched, but the other organs should receive their quota of our attention. Jaundice is always a very grave symptom. It is a good rule to consider every pregnant woman constipated until otherwise proved by a competent nurse. The experiments of Tarnier, Ludwig and Savor certainly show that the toxicity of the blood serum is increased in eclampsia, while on the other hand those of Charrin and Volhard seem to prove just as conclusively that it is not. In treatment, prophylaxis stands preeminent. When the trouble has developed the treatment may be summed up in one word, "elimination," and nothing will give such immediate results as blood letting, followed by infusion or transfusion of saline solution. If the patient be anemic, do not bleed, but use the saline injection. The results of such treatment observed to the effect that: (1) The patient's general condition will improve; (2) the cyanosis, muscular twitching and rigidity will have ceased; (3) the pulse, which before was hard and bounding, will have lost its tenseness, and the attendant coma, be it ever so deep, will slowly but surely be lifted. He further says in conclusion, that if blood letting, together with saline infusion or transfusion, were more generally employed, better results would be obtained in the treatment.

Adrenalin as a Stimulant.

Miles and Muhlberg (Cleveland Med. Jour.) have made a series of experimental researches in animals. In certain cases of circulatory collapse the usual heart stimulants have little effect, because it is not the heart which is at fault, but the vasomotor system. Adrenalin has been considered an agent which can readily overcome vasomotor shock by acting directly on the heart and arterioles, but is unfortunately evanescent in its action when injected into the blood. The aim being to make the action more prolonged and less powerful, the authors have extended their research in this direction. They produced a condition of shock in rabbits by excessive quantities of an anesthetic (ether). When more or less complete motor paralysis was present injections were given in the jugular vein with the object of increasing the blood-pressure, of digitalin, strychnine, whisky, salt solution, and adrenalin. Digitalin, whisky and strychnine were without effect on the blood-pressure. Normal saline caused a slight fall in the pressure and a decided slowing of the heart rate. The 1-1,000 solution of adrenalin was diluted 10 times, and one-half to one c.c. injected. An immediate and powerful rise of blood-pressure resulted, which remained up for about five minutes. The rise was often higher than the original pressure before the ether poisoning. The sinking was gradual, but not below the original level. The subcutaneous injection was not followed by so prompt an action. The pressure only rose when massage was practised at the site of injection, probably hastening in this way the process of absorption from the subcutaneous lymph-spaces. The authors draw the following conclusions from their experiments: (1) Adrenalin may be of value in so-called heart-failure during anesthesia, etc., when ordinary stimulants fail; (2) it is more likely to succeed where the respiratory centers are not paralyzed, since adrenalin does not appear to be a very powerful respiratory stimulant; (3) when used it should be given subcutaneously and slow massage done at the site of injection; (4) that dilution with normal saline solution by making absorption slower, causes a more prolonged and less energetic rise in the blood-pressure; (5) bad after-effects were not observed, but the danger from secondary hemorrhage as a result of the high pressure must be borne in mind; (6) adrenalin, subcutaneously, is indicated on theoretic grounds for the vasomotor collapse following cocaine or chloroform poisoning, and possibly shock after operation.

Surgery of Gall-bladder.

Mayo (Medical Record, Feb. 21, 1903) mentions how important a factor infection is in causing gall-stones and especially in exciting subsequent attacks of colic and cholecystitis. It is true that the problem of interference is a much more difficult one to settle than that of the similar condition, appendicitis. The patient is along in years and often, by reason of degenerative changes or adipose tissue, is not a good subject for operation, and, again, death does not often come with the tragic suddenness which often characterizes appendicitis. The causes which convert latent calculi into active ones are infection and the mechanical interference with drainage from the gall-bladder. Both these causes are usually present, depending upon one another, for it is usually the germs which excite the inflammatory obstructive products or induce the contractions which engage the stones in the mouth of the cystic duct. The question for consideration is whether in view of the possibility, nay, probability, of further extension of the trouble, it is not wise to remove active gall-stones early. The results of such operations are remarkably good. In over 2,000 operations of this kind in the hands of six surgeons, there was not a single instance of reformation of gall-stones. Complications are due to changes in the wall of the gall-bladder or involvement of the bile-ducts, and the stones may then become only an incident in the process which they initiated. The difficulties in the way of operation during an acute attack are much increased. Infection of the liver ducts introduces an element of uncertainty in the prognosis, and to this cause the majority of deaths after operation may be traced. Every gall-bladder presenting active symptoms should be looked upon as an infected organ and be drained. Only in the latent cases is it safe to do the ideal cholecystotomy. Drainage is continued till the bile is normal, and as the fundus is permanently elevated, gravity drainage through the cystic duct is even better than in the normal state. If the walls of the gall-bladder are thickened, and especially if the cystic duct has been obstructed, the gall-bladder should be removed if possible. If the liver ducts are not entirely free trom inflammation the cystic duct should not be tied, for drainage of bile from the liver ducts must be provided for. Kehr says that the hepatic ducts require drainage in at least thirty-seven per cent. of cases, In the management of such cases it is recommended that the mucous membrane of the bladder be removed, the peritoneal, and as much as possible of the muscular coats be left intact. This gives the temporary advantage of free drainage

for the hepatic ducts and the permanent effects of cholecystectomy. The mucous membrane is readily removed from the region of the cystic duct, but is firmly adherent at the fundus. For this reason the fundus may be cut away, the edges being stitched to the abdominal wall.

A Family of Bleeders.

Sadler (The Birmingham Medical Review) describes a family of five sons and five daughers. One of the sons, the youngest, shows the hemophylic tendency. The daughters are all quite well, but the four who have married have each transmitted the diathesis to their male children. The sons' children are all well, free from the affection. An analysis of the daughters' children brings out the following facts:

There were in the second generation 8 boys and 5 girls. Three of the boys have been bleeders, 2 of whom have died from hemorrhage at the age of 3 and 7 years, respectively, without showing the joint affection, while the third is, at the age of 14, almost a cripple from disorganization of the knee-joint. Those who snffered were the 1st, 11th, and 13th members of the family of 13. It is curious to note that the 12th has never bled, and is considered the most healthy of all the children, though the brothers born immediately before and after him had the tendency well marked.

The daughters are the 4th, 5th, 6th, 8th and 10th members of the family. They have had between them 15 children of whom 2 were girls who died in early infancy. Of the 13 boys, 9 have shown the hemophylic tendency. Two of these have so far had the joint affection only; 4 have had external hemorrhage without hemarthrosis, 3 of them dying from it just under the age of 2 years; the 4th being as yet barely 3 years old, and so at an age when the joint affection may yet develop. Three of the 9 have had both hemorrhage and hemarthrosis.

Miscellaneous.

FIFTIETH ANNUAL SESSION NORTH CAROLINA STATE MEDICAL SOCIETY PRELIMINARY ANNOUNCEMENT AND PARTIAL PROGRAMME.

The fiftieth regular annual meeting of the State Medical Society will be held at Hot Springs, N. C., beginning Tuesday, June 2, 1903.

The 41st annual session of the State Board of Medical Examiners will be held at Hot Springs also beginning its sessions Wednesday, May 27, 1903.

The following is a partial announcement of a very attractive programme containing as it does some of the State's most eminent medical men:

Address of Welcome, Hon. Thos. Rollins.

Response, Dr. J. E. Stokes.

The President's Address, Dr. A. W. Knox.

The Annual Oration, Dr. Joseph Graham.

The Annual Essay, Dr. E. A. Moye.

The Annual Debate, topic "Croupous Pneumonia," Dr. A. S. Pendleton, leader of debate.

"The Practical Contributions of Bacteriology to Medicine," Dr. Arthur R. Guerard.

"The Relationship of Micro-Organisms and Human Beings in Health and Disease," Dr. Paul Paquin.

"Post-Operative Pneumonia," Dr. Lawrence E. Holmes.

"A Plea for the Early Recognition of Pleurisy," Dr. Thos. E. Anderson.

"Problems in the Study of the Etiology and Pathology of Pulmonary Tuberculosis upon which are Based the Early Diagnosis and Treatment of the Disease," Dr. H. B. Weaver.

"Diet in Tuberculosis," Dr. C. P. Ambler.

"Drugs in the Treatment of Tuberculosis," Dr. Carl V. Reynolds.

"Intubation, its Value, its Status as a Surgical Resource, Preparation of the Surgeon, Intubation Outfit, Special Points Worthy of Mention, Management of a Patient Wearing an Intubation Tube, Retained Tubes, Reports of Cases," Dr. J. W. Long.

"Some Observations in Practice on Rheumatism Simulating Chronic Arthritis," Dr. W. W. Whittington.

"Hodgkin's Disease," Dr. W. L. Kirkpatrick.

"Remarks Upon Appendicitis," Dr. F. T. Merriwether.

"A Consideration of Injuries as Seen in Wood-Working Factories," Dr. C. A. Julian.

"The General Practitioner in Relation to Ocular Disease," Dr. H. H. Briggs.

"The Medical Side of Gynæcology," Dr. D. A. Stanton.

"The Surgical Side of Gynæcology," Dr. E. T. Dickerson.

"Man's Responsibility in Sterile Marriages," Dr. W. H. Prieleau.

"Twenty Cases of Puerperal Eclampsia," Dr. L. B. McBrayer.

"A Study of Salpingitis," Dr. H. A. Royster.

"The Perinæum," Dr. H. S. Lott.

"On the Use of the Private Clinical

Laboratory by the General Practitioner, its Value and Limitations with Practical Suggestions as to its Equipment and Management," Dr. C. L. Miner.

"The Normal Salt Solution, its Physiologic Action and Therapeutic Uses," Dr. Geo. P. Edwards.

"Traumatic Occlusion of the Nares—Report of Two Cases," Dr. Kemp P. Battle, Jr.

"The Benefits to be Derived from County Medical Societies," Dr. Albert Anderson.

"The Significance of the Recently Discovered Hook-Worm Disease for the North Carolina Practitioner—with Demonstrations," Dr. Chas. Wardwell Stiles, M.H.S.

"The Better Organization of the Medical Profession," Dr. J. N. McCormack.

"Some General Remarks on Gynæcology," Dr. J. F. Highsmith.

"Fibroma of the Ovary," Dr. G. L. Hunner.

"Diseases of Women and Their Treatment by the Country Practitioner," Dr. K. G. Averitt.

"Quinia," Dr. S. E. Koonce.

"The Clinical Examination of the Blood and its Possibilities," Dr. J. H. Manning.

"Therapy of Typhoid Fever," Dr. R. A. Whittaker.

"Hydrastis," Dr. Francis Duffy.

"Retroflexion of the Uterus with Report of Five Cases of Pregnancy Following the Operation. Suspension of the Uterus for Retroflexion," Dr. J. E. Stokes.

"Traumatic Tetanus," Dr. P. A. Nicholson.

"Things to Consider Before Sending a Tuberculous Patient Away for Treatment," Dr. M. L. Stevens.

"Atypical and Irregular Typhoid Fever," Dr. P. J. Macon.

Iodipin in Pediatric Practice.

Dr. P. Torretta agrees with Martinet that of the three methods of administering iodine and the iodides, each one presents a serious disadvantage. When we administer them by the gastric route we have to deal with the exceedingly disagreeable taste and the irritant action on the gastric mucosa; by the rectal route they must be administered in very dilute solutions, to prevent injury to the intestinal walls; while the hypodermic route is practically out of the question on account of the severe pain caused by the injection. In iodipin we have a combination of iodine in which all these disadvantages have been removed. After reviewing briefly the voluminous literature on iodipin, the author reports some of his own cases from the service in the pediatric section in the polyclinic of Turin. The 10-per cent. iodipin was given internally, while both the 10- and 25-per-cent. strength were used for hypodermic injections. The children took the iodipin readily; but some aromatic candy or a piece of dry bread was generally given to take away the oleaginous taste. The injections were made into the gluteal muscles with an ordinary hypodermic syringe, the needle being of a somewhat larger caliber than usual. The doses per os were one to two teaspoonfuls of the 10-per-cent. preparation; hypodermically, 1 Cc. of the 25-per-cent. strength was injected, this being increased to 2 or 3 Cc. The author considers the hypodermic method perfectly innocuous, never having observed any local reaction. The cases reported by the author in detail and which we abstract briefly below, are as follows:

Case I.—Four years old; right bronchopneumonia of two months' duration, with retarded resolution. Percussion showed dulness from the points of the scapula to the base of the lung. Two Cc. of the 10-per-cent. iodipin was injected every day for fifteen days; after the fifteenth injection the patient could be considered cured.

Case II.—Four and one-half years old. Bronchial asthma, with pulmonary emphysema; had been suffering with a severe convulsive cough since three years of age. An examination showed prominent intercostal space, total disappearance of the area of cardiac dulness; harsh inspiration, prolonged and sibilant expiration; liver enlarged; adenoids present. Iodipin was administered for about four months and a complete cure resulted.

Case III.—Six and one-half years old; chronic bronchitis, with suspicion of tuberculosis. When a year old suffered with measles complicated with severe bronchopneumonia. The patient was pale, thin, had a severe dry cough, with night-sweats; suffered with anorexia and general debility. Cod-liver oil with creosote gave rise to nausea and vomiting, and had to be discontinued. Forty injections of iodipin 25 per cent. (first 1 Cc. [15 min.], then 2 Cc. [30 min.], in all 60 Cc. [2 oz.]), effected a complete disappearance of all the symptoms, and the patient gained in strength and weight. The patient, seen ten months later was still in good health.

Case IV.—Nine years old. Severe diffuse scrofula. When four years old the child had severe pertussis, followed two months later by double broncho-pneumonia, with tardy resolution. At five years of age the patient developed a fungous arthritis, first of the left knee, which was operated on, and then of the right knee. There then followed a suppurative adenitis of the inguinal, of the submaxillary, and of the sternal glands, etc., etc. Iodipin hypoder-

mically—in all 100 Cc. of the 25 per cent. strength—produced a most remarkable effect. The general condition improved, the various fistulæ closed, and the ulcerations healed, some ulcerations in the fingers remained obstinate, but they also healed after two months.

Case V.—Was one of submaxillary adenitis and chronic peritonitis, and case VI one of ulcerating angioma. In case V ten injections, each of 15 Cc. of 10-per-cent. iodipin, were given, and the abdomen was painted with iodoform-collodion; and the condition greatly improved; in case VI 10-per-cent. iodipin was applied locally to the angioma and complete cicatrization took place in ten days.—Progr. Medico, i, No. 18.

A Contribution to the Treatment of Tuberculosis.

Dr. Salvo Arcangelo, sanitary officer of the town of Comiso, Italy, reviews briefly the treatment of tuberculosis. He admits that the hygienic and dietetic treatment is of the utmost importance, that drugs alone will not conquer this fatal malady; but he recognizes that drugs play an important role as auxiliary agents, and that they are indispensable in the majority of cases. Creosote in small doses has given him good results; he prefers to give it in combination with iodoform, balsam of tolu, benzoin, or extract of gentian (in pill form). Guaiacol he used internally in the form of guaiacol carbonate; it produced no symptoms of intolerance or gastric irritation, but he did not obtain with it such good and rapid results as he had expected. He also used guaiacol externally, painting the chest with a 5-per-cent. solution of guaiacol in tincture of iodine. The thorax is divided into four parts, and each day one part is painted and covered with guttapercha tissue to prevent too rapid evaporation. The results of this treatment have been very good; the fever and the cough dimmish, the expectoration becomes more mucous, etc.; it has, however, one serious inconvenience—it often produces a too sudden lowering of temperature, with profuse sweats and threatening collapse.

The ideal of creosote therapy has, in the author's opinion, been attained in thiocol, or guaiacol-sulphonate of potassium. This guaiacol derivative is soluble in water, is odorless, and practically tasteless, and is remarkably innocuous, as it can be given up to 90 grn. a day without producing the least systemic disturbance. He has used the drug in a number of cases and always with satisfactory results. He reports in detail the case of a youth, of twenty, of delicate constitution and a hereditary disposition to tuberculosis, in whom an examination of the sputum showed the presence of an abundance of tubercle bacilli, associated with pyrogenic cocci and various bacteria. In this case a course of thiocol treatment produced a practically complete cure. A physical examination showed a normal respiratory murmur over the entire respiratory area, except one spot of about 3 inches in diameter, corresponding to the left scapular region; there the respiratory murmur was completely abolished, giving the impression of an absolute pulmonary atelectasis. An examination of the expectoration, made again after one month of thiocol treatment, showed great diminution of the tubercle bacilli, and the associated bacilli had entirely disappeared. The author's opinion is that creosote and its derivatives, among which thiocol occupies a prominent place, have a distinct anti-tubercular action, and in order to obtain the latter it is not at all necessary to give dangerously high doses. The best results may be obtained with small doses frequently repeated and faithfully administered over a long period.—Gior. quindic. di Med. e Chir., v, No. 57.

Clinical Uses of Dionin.

Dr. L. Neufeld, after referring to the various uses of dionin, as reported by other investigators, briefly relates his own extensive experience with this drug during the past four years in painful affections in which he used to prescribe morphine, antipyrine, or the bromides. Four typical cases are described at some length; two were of violent headache following cerebral hemorrhage, one of uterine carcinoma, and one of cancer of the stomach and liver. In the first two patients, dionin in 0.02 Gm. ($\frac{1}{3}$ grn.) doses promptly relieved the pain completely, while all the usual anodynes had proved ineffectual. In the uterine cancer case (with ulceration into the intestines) rectal suppositories of 0.03 Gm. ($\frac{1}{2}$ grn.) kept the patient free from pain; and in the fourth case 0.025-Gm. ($\frac{3}{8}$ grn.) doses of dionin banished the pain entirely. Dr. N. has used dionin with good result also in nervous headache (migraine), toothache, cough, female diseases, gastric ulcer, and lithiasis. He considers it a valuable and safe remedy. —Aerztl. Rundschau, 1902, No. 44.

Dr. J. Weigl states that he no longer uses morphine hypodermically, but in its stead dionin. He has employed it on his own person, and has found that it promptly and positively relieves pain, without provoking nausea, headache or constipation; while its hypodermic injection does not produce pain or irritation. In a case of gall-stone colic of several years' standing and repeat-

edly treated previously with morphine injections, the pain was speedily subdued by two injections of 16 min. of 2-per-cent. solution of dionin. In disease of the respiratory tract dionin regularly diminished the coughing spells and dyspnea, while facilitating expectoration. Phthisical patients who took at bedtime 25 to 40 drops of a 2-per-cent. solution, in tea or milk, had a good night as a rule. In subacute and chronic laryngitis and bronchitis occurring in men having dusty occupations, dionin soon considerably relieved the annoying cough and irritation in the throat; and the drug proved much more powerful in action than codeine. In a series of 60 cases of whooping-cough the results were very satisfactory, the number and violence of the attacks decidedly diminished within a week to a week and a half, and the entire disease assumed a considerably milder form; though the dionin was often given uninterruptedly for weeks, no untoward accessory or after-effects were observed. The drug was usually prescribed in solution in equal parts of syrup of raspberry and distilled water—for children under 1 year, 0.01 Gm. ($\frac{1}{6}$ grn) in 120 Gm. (4 oz.); for those 1 year old, 0.02 Gm. in 120 Gm.; for those 2 years of age, 0.03 Gm. in 120 Gm. The dose of the mixture was a teaspoonful every 3 hours. Finally, Dr. Weigl has employed dionin in infantile tuberculosis and other pulmonary affections, with equally satisfactory result.—Wien. klin. Rund., 1902, No. 48.

Enemas of Bromipin.

Dr. A. Rahn reports good results from the use of bromipin (brominized sesame oil) enemas, especially in infant practice. He gives nurslings per dose as many grams as they are months of age; to children over 1 year, from 10 to 15 Gm. ($2\frac{1}{2}$ to 4 dr.); children over four years of age, from 15 to 30 Gm. ($\frac{1}{2}$ to 1 oz.); and adults from 30 to 40 Gm. (1 oz. to $1\frac{1}{4}$ oz.) The bromipin is added, with stirring, to from $\frac{1}{2}$ to $1\frac{1}{2}$ cups of tepid flaxseed or moss tea. In infantile convulsions, whether idiopathic or symptomatic, the action is said to set in within ten minutes; the rigidity lessens; only a slight tremor persists and occasional twitching of the eyelids, and the child turns on its side to sleep. The author continues the treatment for a week, giving an injection night and morning. In whooping-cough, the attacks decidedly diminished in severity and also considerably in frequency within ten to fourteen days' use of bromipin enemas, night and morning, and the children partook of nourishment as usual. In the third and fourth weeks only one enema was given daily. In atrophy of nurslings bromipin injections have given very satisfactory results; the oil serves as a nutrient of great value. In tuberculous processes of children, particularly tuberculosis of the bronchial glands and of the meninges, the cough was in two cases materially lessened in severity as well as in frequency; and the grave convulsions accompanying tubercular meningitis were speedily subdued and sleep produced by the bromipin enemas, the latter being repeated three or four times in twenty-four hours. In three cases of cholera morbus with symptoms of acute hydrocephalus these enemas had a good effect; an infant of eight months, was completely restored within a fortnight by injections of 8 Gm. (2 dr.) of bromipin night and morning, and showed no signs of neurasthenia subsequently. Finally, the author reports good results from the use of bromipin enemas in rachitis, in epilepsy, in phthisical neurasthenia, and in the excitation accompanying apoplexy and contusions of the head.—Ther. d. Gegenw., v, No. 1.

The Modern Therapy of Septic Puerperal and Surgical Infections.

By Roswell Park, M. D., LL.D., Professor of Surgery, University of Buffalo. Abstracted from The Alpha Omega Delta Bulletin, March, 1903.

The most efficient measures for the treatment of surgical infections are the various silver preparations for whose introduction into surgical and obstetrical work we are indebted to Crede of Dresden. We have been for decades looking in vain for an effective antiseptic which is devoid of marked toxic or irritating properities. Allotropic silver (Collargolum) seems to offer us the nearest approach thereto. Between this silver preparation which is so bland and the silver salts like nitrate of silver, also introduced by Crede, of which reasonable strong solutions can be used upon quite sensitive surfaces without producing much if any disturbance.

Let us first take the aqueous solution of soluble metallic silver (Collargolum) which in the strength of 1 to 500 in distilled water makes a somewhat cloudy solution. In this strength it may be used by intravenous injection in cases of severe general or puerperal sepsis, rapidly spreading gangrene, acute articular rheumatism or other serious infections. In fact, solutions as strong as 1 to 100 may be employed; it being desirable to introduce 6 cg. (.9 grains) to 10 cg. ($1\frac{1}{2}$ grains) at least. If there be difficulty in injecting it into a vein it may even be given beneath the skin. Unpleasant effects will not be noticed, neither will any immediate relief follow, but the solution thus in-

troduced coming into contact with the blood which in these cases is swarming with germs, will promptly begin its bactericidal work, whose effects should be manifested after two or three hours by a fall of temperature and amelioration of septic symptoms. Silver used in this way has been of great service in cases of carbuncle and even of acute anthrax. Moreover its administration may be repeated as often as may seem necessary.

When metallic silver is made into a suitable ointment (Unguentum Crede) which, by the way, much resembles mercurial ointment, and is then applied to the skin, there is a rapid absorption of the silver itself with its dissemination into the blood stream and results like those just mentioned. It is simply a somewhat slower method of introducing it into the system. For many years I held and taught that the combination of resorcin, ichtyol and mercurial ointment, which I believe I introduced into surgical practice, was the most effective remedy for the treatment of erysipelas and all similar septic infections. To-day I have found but one combination which I think superior for this purpose, and that is the silver ointment, Unguentum Crede. I believe that its properties are more marked than those of the ointment which I so long used. No matter what part of the body be anointed absorption takes place readily and promptly, consequently any convenient surface may be medicated in this way. Cleanse the skin thoroughly, smear the ointment freely over the surface, cover the area with oiled silk, and put over this, if comforting to the patient, a warm application to promote absorption. If the surface be not tender, the ointment may be rubbed in. In cases of puerperal sepsis it may be applied over the abdomen or to the inside of the thighs. In erysipelas it should be applied to the affected part. It makes very little difference what the exact nature of the infection is, one may rely upon it that the silver will be absorbed and will do good work. This is true for instance in such acute infections as endocarditis and meningitis.

Advantage may also be taken of the properties of metallic silver by giving it internally as an intestinal or urinary antiseptic, for which purpose it should be given in pills or capsules. These are unirritating and extremely efficient and may be given where remedies like salol, benzosol, etc., are ordinarily exhibited.

Lastly I would speak of the use of lactate and citrate of silver, not only for such purposes as the preparation of catgut, silk, gauze, etc., but in solution of from 1 to 300 to 1 to 500 for the irrigation of septic cavities, and for such purposes as washing out the peritoneal cavity in cases of tuberculous peritonitis, for which I have repeatedly used it and always with benefit. I differ from my friend, Dr. Fenger, of Chicago, now dead, who did not favorably regard washing out the abdominal cavity in these cases. In my own experience, in several instances, a flushing of that cavity with a 1 to 500 solution has been of the greatest apparent benefit and has never occasioned any regret. Infected bladders, uterine cavities and vaginas may be advantageously, freely and frequently washed out with similar solutions. When using them one may have the feeling that he is using solutions of greater efficacy and of far less toxicity than any of the mercurial preparations would afford. Therein lies the beauty of these preparations, that in anything like equal strength they are more effective and much less toxic than the mercurial salts.

This is a very brief epitome of my views regarding the value of the silver preparations in surgery. I often state in my clinic that the good old-fashioned nitrate of silver is not used nearly so much as it should be and prove the strength of my conviction by its general use in 1 to 10 per cent. solutions in pus cavities. Not only is a full germicidal effect obtained but also that stimulation to healthy granulation which the nitrate is well known to afford. All in all if I could have but one source for antiseptic solutions and applications I would rather look toward the preparations of silver than in any other direction.

Collargolum: The Various Indications for Its Use, the Methods of its Employment, and the Mechanism of its Action.

By Prof. Netter, of the Trousseau Hospital, Paris. Abstracted from the Bulletins et Memoires de la Societe Medicale des Hopitaux de Parir, January 22, 1903.

Since publishing his first experiences with Collargolum Prof. Netter has used it in over 130 cases, both in the form of Unguentum Crede, and by intravenous injection. The latter is used when a quick and energetic action is necessary or when the condition of the skin will not permit the absorption of the ointment. The favorable influence of the medication is not always immediately noticeable and in some cases it must be frequently repeated.

Improvement is manifested in various ways. The most constant and most important phenomenon is the change in the general condition. The patient feels stronger, becomes more animated, losing depression and stupor. Many of the typhoid patients sat up in bed spontaneously, showed interest in their surroundings and asked for

FIRST OF ALL

insist on rest and freedom
from care; then always prescribe

GRAY'S Glycerine TONIC Comp.

This, authorities state, will,
if persistently followed, overcome
any case of general debility, nervous
exhaustion or neurasthenia.

THE PURDUE FREDERICK CO.,
No. 15 Murray Street, New York.

PRUNIER'S

HYPERPHOSPHINE

REGISTERED

(C_3 H_7 $CaPhO_6$, $2H_2$ O)

Pure Phosphoglycerate of Lime

Prepared according to the original process of MM. Portes and Prunier.

INDICATIONS.—In all cases of weakness by Anæmia, Neurasthenia, Headache, Neuralgia, Nervous Cough, General Debility.

HYPERPHOSPHINE *is non-toxic.*

HYPERPHOSPHINE *is supplied in three forms:*
Granulated, Syrup, *and* ***Wafer-Cachets***

When prescribing, specify which of the above is wanted.

E. FOUGERA & CO., Sole Agents, New York

drink and even food. They looked brighter, the cheeks assumed more color, heartbeats became more regular and the pulse improved in strength. Even when temperature was not modified the disease lost some or the whole of its infective and typhoid character. These changes occurred with extreme rapidity, often almost instantaneously. Temperature fall took place promptly and definitively, though not in every case. The duration of the disease was often abbreviated and quick convalescence followed.

One of the typhoid cases had intestinal hemorrhages on the 20th day; but recovery took place in spite of them. Another one, treated with Collargolum, had a relapse. Some very bad cases and some in which treatment was begun too late could not be saved.

Prof. Netter has had extremely satisfactory results in 9 pneumonias, 9 typhoids, 14 broncho-pneumonias of all kinds, and 4 severe scarlatinas. In the diphtheria pavilion especially the treatment has given marvellous results in 37 cases; several malignant cases that seemed necessarily fatal, were cured. He was also well pleased with the results obtained in a puerperal infection, in one infectious and in one rheumatic endocarditis. He cannot sufficiently recommend the employment of intravenous Collargolum injections in acute endocarditis, from any cause, following Wenckebach. In two cases of pulmonary tuberculosis in the third stage and in six cases of tubercular meningitis no results were obtained.

Prof. Netter does not entirely attribute the action of Collargolum to its antibacterial properties. He believes that its catalytic power is of greater importance and shows that all the colloidal metals are powerfnl catalysators. What the modifications of the blood are which the colloidal silver produces, Prof. Netter is not yet prepared to say. Analogy and hypothesis alone are at present available. Experimentation, though surrounded by difficulties, will doubtless furnish direct proofs, and will, he hopes, permit us to markedly enlarge the great field of therapeutic application for Collargolum.

I have used *Aletris Cordial Rio* for menorrhagia and dysmenorrhea and find it an invaluable remedy as a uterine tonic. The Aletris Cordial Rio has for a number of years been a great favorite with me in derangement of the female reproductive organs, therefore I recommend it as a tonic in uterine troubles, as it will give satisfaction to those afflicted with such diseases.

C. A. Goshen, Petaluma, Cal.

Parallel Action of Lecithine and Cacodylic Medication on the Same Patient.

This relates to the case of a young woman, twenty-seven years old, whose bacillary antecedents are characterized by the constation of cervical Pott's disease cured some fifteen years ago. This young person whose vertebral column is only slightly deformed on the level with the cervical region shows no peculiarity at the auscultation towards the lungs or the heart. There is however some depression of the right kidney the lower part of which can be felt by bi-manual palpation, while it protrudes over the inferior border of the liver; she is also subject to frequent gastro-intestinal troubles.

She is neurasthenic, emaciated and presenting in a continuous manner the characteristic of the "Casque des Neurastheniques" (helmet of neurasthenics).

Last May she was compelled to remain in bed on account of persistent and intolerable cephalalgia. We saw her at that time: keeping the "decubitus dorsal," cerebral fatigue was so intense that she could not stand reading and much less conversation. Day light was very painful to her; she complained besides of violent pain in the stomach, she vomited every day at the same hour. Her alimentation consisted of milk and tea, with an occasional egg during the day. She had been in that condition for the last six days, and she had experienced before several attacks of the same kind.

At the examination we localize the maximum of pain along the nape of the neck which is rather stiff. There is no pupillary unequality, but the tongue is covered with a thick "Saburrhal" coating; the abdomen is slightly distended and there is constipation. Temperature and respiration normal, pulse 90.

The patient sits in bed with difficulty and there is absolute rigidity of the spinal column. In presence of these symptoms and considering the extreme emaciation of the patient as well as her personal antecedents we think that meningeal accidents are possible and accordingly we prescribe absolute rest and give the iodides.

Two weeks later the condition of the patient had not undergone any change, on the contrary, dyspeptic symptoms were more apparent, vomiting still appeared periodically, appetite as nil and there were night sweats.

We then submit this patient to the cacodylic medication and we give a first hypodermic injection of ten centigrammes of cacodylate of soda or the contents of two tubes (Clin). Half an hour later the patient

Thiocol Roche

is admitted by many careful observers to be the most active and readily borne derivative of guaiacol or beechwood creosote. It is meeting with high favor in the treatment of

COUGHS
BRONCHITIS
PNEUMONIA
TUBERCULOSIS

BEECH
(Fagus Sylvatica L.)
Source of
Creosote, Guaiacol
and Thiocol Roche

"Thiocol is a derivative of guaiacol and sirolin is its syrup preparation. It possesses the properties of guaiacol without its disagreeable by-effects. * * Clinical experience is demonstrating its great value in the treatment of tuberculosis. * * Thiocol increases the number of red corpuscles and the proportion of hemoglobin. The leucocytes increase at the expense of the polynuclears. The thiocol further enhances the alkalinity of the blood, the serum albumin progressively increases in amount and it has an unmistakably favorable influence on the organic chemistry in general."—ABSTRACT IN *Jour. of Amer. Med. Assoc.*, SEPT. 20, 1902, *p.* 731.

Thiocol Roche is a water-soluble odorless form of guaiacol. It may be procured in three forms:

THIOCOL ROCHE POWDER: 5 to 20 grains 3 times a day.
THIOCOL ROCHE TABLETS (5 grain): 1 to 4 tablets 3 times a day.
SIROLIN (Syr. Thiocol Roche, 6 grn. to teaspoonful): 1 to 3 teaspoonfuls 3 times a day.

Beware of Spurious Products and Imitations!

CLINICAL DATA CONCERNING THIOCOL ROCHE ON REQUEST

MERCK & CO. UNIVERSITY PLACE NEW YORK

experiences a plain sensation of appetite. There is no vomiting on that day.

During three weeks we give the hypodermic injections of cacodylate of soda, every other day, ten centigrammes each time; at the third injection the vomiting and night sweats entirely disappear. At the end of a week this patient whose general condition had so much worried us, comes back to life so to speak, and we must admit that we are none the less surprised, as the anterior medication had been given without result. This case may be mentioned side by side with the observations of Professor Gouthier, on account of the activity of cacodylic medication.

At the expiration of two weeks this young woman was able to get up; her strength came back and she began to get fat. She regained three kilogrammes during the treatment.

The treatment with hypodermic injections is then interrupted on account of the departure of the patient for the country. She is directed to take enema with cacodylate of soda in place of the hypodermic medication.

We see this patient fifteen days later; she complains that the cacodylate of soda administered per rectum has not the effect of the hypodermic injection. It has in fact been impossible to ascertain in the country the origin of the medicine.

We think then of giving lecithine instead of cacodylate, and we prescribe the soft pills of lecithine (Clin) of five centigrammes each. We give four of these pills daily, two before each meal.

At the end of eight days our patient writes that she experiences with lecithine the same amelioration which she noticed with the hypedermic injections of cacodylate of soda. We see her again three weeks later.

This young woman then presents the picture of a complete metamorphosis; her appetite is normal, and she has gained flesh. The movements of the spinal column are absolutely free, although the characteristic crackling sound of chronic arthritis is noticeable in the region of the Nucha. We thought then that the first alarming symptoms observed were symptoms of cervical arthritis repercuting on the general state of the patient.

The fact remains that this young patient has been actually resuscitated by new medication when old therapeutics failed, and on the other hand we see also that internal medication with lecithine—is almost identical to the hypodermatic medication with cacodylate. This change of medication is interesting as it involves a case considered very serious.

This observation shows us also how important it is to employ only reliable remedies in therapeutics and especially is new therapeutics. In fact we do not know what kind of cacodylate of soda our patient used in the country; it is possible that the failure of cacodylic medication per rectum was due to the quality of the product used. To avoid these failures we are in the habit of prescribing Clin's preparations which always give us satisfaction.

This observation reminds us also that the acute inflammatory accidents occurring as epiphenomena to a neurasthenic, may temporarily mislead the diagnosis, and that at all events, harmless medications, like cacodylate of soda and lecithine, directed against accidents of a tuberculous nature and against nervous phenomena of nutrition, should always be tried in similar circumstances. This is the practical conclusion which results from the report of the above observation. Dr. Raymond,

(Revue Critique de Medicine et de Chirurgic.)

E. Fougera & Co., Agents,
New York.

Merit and Reliability with Consequent Success.

We are advised that our old friend "The Antikamnia Chemical Company," for many years located at No. 1723 Olive St., St. Louis, Mo., has moved into its new home, Nos. 1622-1624-1626 Pine Sreet, in said city. The new laboratory is fully equipped with all the latest chemical appliances and machinery, which afford increased and needed capacity for the manufacture of the well known and reliable Antikamnia Preparations. The Company's sales during 1902 were the largest in the history of their business, and that the demand for their products is constantly growing, is demonstrated by the fact that the first three months of this year show a pronounced increase of sales, over those of the corresponding months of last year. In fact, it is the growth of the business which necessitated the removal into larger quarters, where the Company has 75 per cent. more space than in its old plant. The steadily growing esteem in which The Antikamnia Chemical Company's products are held, by the Medical Profession throughout the world, is due to the well known merits of the original Antikamnia Tablets and Powder, as well as to the undoubted remedial efficacy and pharmaceutical excellence of the new combination tablets which this Company has, from time to time, added to its line of specialties.

LISTERINE

The standard antiseptic for both internal and external use.

Non-Toxic, Non-Irritant, Non-Escharotic—Absolutely Safe, Agreeable and Convenient.

LISTERINE is taken as the standard of antiseptic preparations.

The imitators all say, "It is something like LISTERINE."

BECAUSE of its intrinsic antiseptic value and unvariable uniformity, LISTERINE may be relied upon to make and maintain surgically clean—aseptic—all living tissues.

IT IS AN EXCELLENT and very effective means of conveying to the innermost recesses and folds of the mucous membranes, that mild and efficient mineral antiseptic, boracic acid, which it holds in perfect solution; and whilst there is no possibility of poisonous effect through the absorption of LISTERINE, its power to neutralize the products of putrefaction (thus preventing septic absorption) has been most satisfactorily determined.

A special pamphlet on catarrhal disorders may be had on application.

For diseases of the uric acid diathesis:

LAMBERT'S LITHIATED HYDRANGEA

A remedy of acknowledged value in the treatment of all diseases of the urinary system and of especial utility in the train of evil effects arising from a uric acid diathesis. A pamphlet of "Clippings" of editorials on this subject may be had by addressing:

LAMBERT PHARMACAL COMPANY, - - ST. LOUIS.

Be assured of getting Listerine by purchasing an original package.

The Effects of Quackery Upon the Legitimate Physician.

The typical medical student of facetious mind and rollicking disposition would hardly impress the casual observer as being an incipient philanthropist—but he is. He does not realize it himself, and has roseate visions of a seat in the directorate of a large corporation when he has been in practice a few years, but the chances are that his connection with corporation interests will be largely restricted to proper attention to gas bills and similar demands.

The true physician cannot resist the call to alleviate suffering. His duty is so plainly set before him that he must and does repond. He therefore accepts the situation and cheerfully performs his duty primarily for duty's sake. He receives his reward, but not in the form of stocks and bonds. These gilt-edged securities are gathered in by the quacks, who flourish on every hand. Their services must be paid for in advance, and they need give no anxious thought for their unpaid ledger "assets." Their dupes scrape together the price of perhaps a single consultation and give a plausible explanation to the family physician for the non-payment of a six months' account.

Perhaps the most aggravating form of quackery which comes under the doctor's eye is the appearance in widely circulated popular periodicals of quack advertisements which show, on their very face, the conscienceless tendencies of the advertisers.

It is fair to presume that people of sufficient ability to run a prosperous daily newspaper or popular monthly are fully acquainted with the demoralizing tendencies of this class of advertisers. They know very well that it is a case of graft; but they take their rake-off with great equanimity.

Every publisher of a quack advertisement not only assists in defrauding the public, but is instrumental in withholding from the legitimate physician the proper reward for his services.—Monthly Cyclopædia of Practical Medicine.

Whys and Wherefores.

Doctor, why do you use cod liver oil? As a food? If so, why? Are there not other fatty foods far more palatable and nutritious and less likely to cause diarrhea and disturbances of indigestion? Why not use cream, Nature's own fatty food—the only fat that Nature furnishes the delicate infant? Or olive oil? Or peanut oil?

Perhaps you use cod liver oil as a tonic. Does it exert a tonic effect? Yes. Why should cod liver oil act as a tonic and other fats not? It is different. It differs in that it contains alkaloidal and extractive principles, or in other words, these principles are the tonic. Then why not use them and reject the disgusting oil.

Perhaps you use cod liver oil as both a food and medicine. If so, do you not think, upon careful consideration, that it would be more rational to use cream, olive oil, or some other easily digested food and administer in connection therewith the medicinal principles of cod liver oil? Try Stearns' Wine on these suggestions and you will be pleased with it.

Writing on "Creosotal Pneumonia," Dr. Bernhard Friedemann of Kaukehmen (Germany) reports in the Therapie der Gegenwart, Feb., 1903, 14 cases of croupous pneumonia, of which he details 10, to which he administered Creosotal. Two of the patients were alcoholics; but they all rapidly yielded to the treatment.

The characteristic effects of Creosotal were marked in all these cases, particularly in one which, on account of premature discontinuance of the treatment, suffered a relapse.

Dr. Friedemann exhibits as large doses of Creosotal as possible, in emulsion, and finds that it is always well borne. His adult dose is 1½ to 2 drams per day; for children from 8 to 14 years about half that amount; and for infants proportionately less.

He has no doubt that Creosotal is inhibitive and bactericide to the organic etiological agent in croupous pneumonia. This is proved by the recrudescence of the disease when the administration of the remedy is stopped too soon. It is also probable that the drug exerts an antitoxic action. The rapid fall of temperature and the prompt improvement of the general condition are hardly explicable otherwise, for both usually occur in 12 to 24 hours. Further experiments will enlighten us on these points. It would also be interesting to ascertain whether Creosotal has a similar action upon the other affections due to the pneumococcus.

In those poor victims of a pernicious "pepsin habit" where the stomach instead of being encouraged to do its normal work, has been allowed to become a lazy inactive member while an artificial digestant did the work, I find Seng a boon. Step by step it seems to lead the faltering gastric functions, until before the patient is aware of it, he loses the happy knowledge that he has a gastric apparatus. In sub-acute or chronic digestive disturbances, I know of nothing which equals it.

Will A. MacKenzie, M. D.

St. Louis.

THE MECKLENBURG

NEW HOTEL AND SANATORIUM. MODERN COMFORTS.

Chase City, Virginia.

A new, modern hotel and Sanatorium located on the outskirts of Chase City at an elevation of 535 feet, with a thorough system of drainage and perfect sanitary conditions, surrounded by 145 acres, a large proportion of which is pine forest; far from any swamps or sluggish streams, a dry, bracing atmosphere and absence of humidity, absolute freedom from malaria and mosquitoes. On the Southern Railroad 12 hours from New York, 3 hours from Richmond and 4 hours from Greensboro, N. C. 125 large, airy bedrooms, all outside rooms, broad verandas, sun-parlors, and the building heated throughout by steam, electric lights, private baths, and every modern convenience for the care and home-like comfort of its guests.

A modern hydriatric department with skilled and experienced attendants (masseurs, etc.) for the administration in the latest and most approved form of all kinds of hydrotherapeutic methods. A complete electric outfit for the administration of galvano-faradic, static and X-ray work. The celebrated Chase City Lithia and Chloride Calcium Waters, with a well established reputation for the cure of rheumatism, gout, chronic kidney and bladder troubles, stone in the bladder or kidney and in all uric acid conditions, indigestion, catarrh of the stomach and bladder, blood troubles, scrofula, glandula enlargements, chronic eczemas, anemias, chronic malarial poisoning, nervous prostration, melancholia, hysteria, etc.

Samples and Literature supplied by

BAYER — PHARMACEUTICAL PRODUCTS — 40 Stone St. New York. — FARBENFABRIKEN vorm. FRIEDR. BAYER & CO.

AGURIN — The Non-Irritating Diuretic.

EPICARIN — The Non-Toxic Dermal Parasiticide.

SALOQUININE — The Tasteless and Improved Quinine.

HEDONAL — The Promoter of Natural Sleep.

FERRO-SOMATOSE — The Ferruginous Nutrient and Tonic.

PROTARGOL — Antigonorrheal, Antiseptic

ASPIRIN — The Best Salicylate

Treatment of Rickets.

By Charles W. McIntyre, M. D., New Albany, Ind.

It was formerly thought that rickets was a disease of the oider countries and in the Western hemisphere it was rarely if ever seen. This view, however, has been exploded by all writers on diseases of children who have written on the subject in the last two decades. Rickets, although a constitutional disease, its main expression is in the bones, causing much deformity and unsightliness. While the bones are afflicted in such a manner as to make a pronounced deformity it is not to be forgotten that almost all of the organs of the economy suffer nutritional changes.

Tuttle very correctly says that the age of greatest susceptibility to rickets seems to be from the second year.

The treatment of rickets comprehends measures which have for their object the supply of nourishment necessary to put the child on the plane of those children who grow normally. To carry out this, it is necessary that the hygienic conditions be brought to the highest degree of excellence under the existing conditions. These children should occupy cool, dry and properly ventilated apartments and they should be given all possible out door exercise. Allowing these children to remain as much as possible in the sunshine is particularly beneficial. A daily bath greatly aids these patients—and the water should be cool rather than warm or tepid. It stimulates the heart and respiration and as Tuttle correctly says lessens the tendency to the contraction of "colds." The diet is very important and should be as nearly as we can make it what is necessary to maintain a normal child in a healthy vigorous manner. Condensed milk and artificial foods are condemned by most writers and this is correct as all practitioners of experience will agree.

A liberal allowance of foods containing fats and proteids should be given while carbohydrates are allowed with stint. Cream, beef juice, scraped beef and similar food products are suitable for these patients.

All authorities agree that our reliance in the way of remedies rests on cod liver oil, phosphorous and lime. To these agents alone can we look for results and happily extensive experience has taught us that they can be depended upon for results. Cod liver oil is most unpalatable and it is only by force that it can be administered to growing children and then we find that it is frequently vomited—and when this does not occur it produces indigestion. I therefore have quitted the employment of cod liver oil in its crude form or any emulsion, and now rely solely on Hagee's Cordial Cod Liver Oil with hypophosphites of lime and soda. This has in solution the medicinal properties, and it also contains hypophosphites of lime and soda. It is therefore the ideal remedy in rickets and I have relied upon it for some time in this affection with the best results.

One most important matter in this connection is that Hagee's cordial of cod liver oil is very palatable and children take it with relish.

A. L., age one year, had been becoming decidedly anæmic and pallid for two months and all the symptoms of rickets were beginning to show themselves. I had the aunt of this child who was raising it to observe the usual hygienic rules already laid down as well as the dietary regulations and it was given Hagee's cordial cod liver oil with hypophosphites of lime and soda in doses of a teaspoonful four times daily. This child began to show improvement two weeks after the beginning of treatment and her improvement was continuous from this time on. Now this child is two and a half years old and is in a vigorous condition with no deformity.

S. P., age fourteen months, had begun to walk but made but poor progress as the bones were quite considerably affected. It was treated substantially as the child referred to above. It is now three years old and is in a vigorous condition, with scarcely any deformity. It took Cord. Ol. Morrhuæ Comp. (Hagee) in doses of a teaspoonful four times daily for six months. It agreed with her as it has done in all my cases.

B. B,, age eighteen months, had symptoms of rickets and some deformity. It was given Cord. Ol. Morrhuæ Comp. (Hagee) in liberal doses and diet and hygiene were given attention. This child made rapid progress and recovered entirely having only slight "bow legs."

M. B., age ten months, richitic and anæmic was put on the same treatment as was employed in the other cases referred to and the result was highly satisfactory—a perfect cure having been attained.

Sublamine in the Treatment of Syphilis.

By Dr. M. Friedlænder, Berlin. Abstracted from the Deutsche Aerzte-Zeitung, February 15, 1903.

Though the general results of the mercurial treatment in syphilis are satisfactory enough, the forms in which the drug could hitherto be introduced into the system left much to be desired. The inunction of the ointment is unscientific; we have no means of telling how much of the drug is absorbed and how much is taken up by the underclothing. Indeed, it is now a matter of

PONCA COMPOUND.

UTERINE - ALTERATIVE

RELIEVES CONGESTIONS, ENCOURAGES PERISTALSIS, REMOVES SPASMODIC CONDITIONS, REGULATES THE VASCULAR SUPPLY.

FOR ALL FUNCTIONAL UTERINE AND OVARIAN DISORDERS

THE ORIGINAL PACKAGE OF PONCA COMPOUND CONTAINS 100 5 GR. TABLETS MAILED TO PHYSICIANS ON RECEIPT OF $1.00.

SAMPLES AND LITERATURE ON APPLICATION. MELLIER DRUG COMPANY, ST. LOUIS.

For Amenorrhœa and Dysmenorrhœa

The emmenagogue properties of this drug, proved by physiological experiments on animals, are due to its specific action, which stimulates uterine circulation and determines vascular congestion, excitement and a peculiar contractibility of the smooth muscular fibres of the uterus.

CHAPOTEAUT'S

APIOLINE

(Registered).

The true active principle of parsley, (differing from so-called Apiol) in four minim capsules.

Apioline is harmless, certain in results and easy of administration. It should be given in doses of 2 or 3 capsules daily, with meals, two to three days previous to the expected menstrual epoch

Apioline regulates and promotes an almost painless flow of the menses.

Sold in original bottles only.

RIGAUD & CHAPOTEAUT, Paris.
New York: E. FOUGERA & CO.

Santal-Midy

OL: SANTAL: FLAV: PUR: (MIDY)

The standard preparation of Sandalwood Oil, in 5 minim capsules. Superior to all commercial oils in the treatment of specific and non-specific Urethritis, Cystitis, Bronchitis, and wherever the properties of Sandal Oil are indicated in inflammatory conditions of the mucous membranes.

debate whether the effects of this method are not ascribable to the inhalation of volatilized mercury during the process. There is almost the same uncertainty when the mercury is administered internally or by baths.

Subcutaneous or intramuscular injection is the only scientifically unimpeachable method of administration, but unfortunately all mercurial preparations hitherto employed in this way have serious drawbacks. Corrosive sublimate energetically coagulates the tissue albumin, causing hard infiltration and severe pain. The other soluble mercurial salts either contain too small an amount of the metal or are not sufficiently soluble. The insoluble salts have the advantage of requiring less frequent administration; but they cause severe pain, and it is not possible to remove any portion of the drug should the patient unexpectedly show signs of mercurial intoxication. The occasional deaths due to their employment hardly incite to their more general use.

Sublamine, mercury sulphate ethylenediamine, however, I found to be extremely soluble and not to coagulate albuminous solutions. The success of laboratory experiments made in this direction induced me to try it clinically.

Fifteen syphilitics were treated with 3.4 per cent. Sublamine solutions, some 280 injections being given altogether. Some of the patients had fresh chancres; others had papular, tubercular and ulcerative secondary syphiloderms; and the rest had syphilitic affections of the mouth, tongue and larynx. The action of Sublamine was exactly the same as that of sublimate. Primary indurations softened and healed, papular and tubercular syphilides retrogressed, and the mucous patches and ulcers of the mouth disappeared.

But the reaction at the site of injection was in every case far less marked. All the injections were made into the gluteal muscles. Indurations did indeed occur; but they were smaller and softer than those caused by sublimate and disappeared more quickly. It was also evident that the pain was very much less. To eliminate the possibility of bias on the part of the experimenter, two patients were given, without their knowledge, sublimate injections in the midst of their Sublamine treatment; and they both complained at the next consultation of the especial pain of their last injection. Unpleasant by-effects were never observed.

We therefore possess in Sublamine an anti-syphilitic that is readily soluble, does not destroy the injection needle so rapidly, and while as efficient as sublimate, causes less induration and pain.

A Diagnostic Chart of Respiratory Diseases.

We have lately received one of the most reliable differential diagnosis charts, covering diseases of the lungs, pleura, bronchi, trachea and larynx, which it has ever been our privilege to see. The data presented is from the pen of Dr. Edward C. Hill, and evidences a great amount of painstaking work on his part. Something better than forty-five diseases affecting the respiratory organs are considered, and after each is given the etiology and diagnostic evidence gained from inspection, palpation, percussion, auscultation, cough, pain, dyspnea, expectoration, voice and miscellaneous. These are arranged in parallel columns, and the diseases most often confused are grouped for aid to differentiation. The usefulness of such a chart will be appreciated by every physician, and we trust that a large number of our readers will avail themselves of the generous offer of the McArthur Hypophosphite Co., Ansonia, Conn., who will mail copies free of expense to physicians making application.

The Anasarcin Chemical Co.,

Gents: The sample sent me has been used on a case of dropsy following inflammatory rheumatism (valvular disease of the heart]. Patient a boy about sixteen years of age; case dates back about 18 months. General dropsy. Was called one month ago; boy had been in hospital under treatment about six monts without benefit. About two weeks ago commenced with sample of Anasarcin, gave three tablets a day six hours apart. Continued other treatment as indicated. Called to-day to see patient and found him much better than when I was first called, and the patient thinks himself better than ever before under any treatment. I attribute his betterment wholly to the Anasarcin Tablets. Would say the case was the worst I have seen in a long practice. I don't think there is any doubt of ultimate recovery under the Anasarcin treatment.

Yours very truly,
E. W. N. Elders, M. D.,
Hematile, Mo.

Notice-- SANDER & SON EUCALYPTOL is invaluable in inflammation of the mucous membranes, and in all septic and infectious diseases. Apply to Dr. SANDER, 88 Lincoln Avenue Chicago, Ill. for sample and literature of Sander's Eucalyptols Meyer Bro.'s Drug Company, St. Louis, Mo., Sole Agents.

INFLAMMATION

"The succession of definite changes occurring in a living tissue when injured, provided the injury is not sufficient in degree to at once destroy the vitality of the part."

OR

"The succession of changes occurring in a living tissue from the action of pathogenic microbes or their ptomaines."

Take either view of the condition, it is the only indication for the use of

ANTIPHLOGISTINE

Turn to your text book on surgery to-day and refresh your memory upon what constitutes "the succession of definite changes;" also note if you please the condition of the circulation in the part affected; then remember

ANTIPHLOGISTINE

Is the most approved method of counteracting these varied abnormal conditions whether they exist in deep-seated organs or superficial structures. If you believe in moist heat, venesection, cupping, hot stupes, blisters and other methods of counter-irritation, lay aside all prejudice and take up Antiphlogistine. It combines all the good features of the barber-surgeon methods just mentioned and produces definite results in a definite manner—no irritating, depressing, annoying or disagreeable after-effects, yet positively effective.

ANTIPHLOGISTINE

When applied warm and think over the affected area, immediately energizes the adjacent tissues, stimulates the cutaneous reflexes, coincidently causing contraction of the deep-seated and dilatation of the superficial blood-vessels. Extension of infection is at once prevented. The overworked heart is relieved by lessened blood-pressure and pain in the congested district is diminished. Normal conditions are soon restored.

ALWAYS PRESCRIBE A FULL PACKAGE,

Small, Medium, Large or Hospital Size,

and thus insure obtaining Antiphlogistine in perfect condition.

The Denver Chemical Mfg. Co.

DENVER LONDON NEW YORK

Spring Medicine.

By A. H. Ohmann-Dumesnil, St. Louis.

It is in the vernal season that the public in general is in quest of what it is pleased to term "spring medicine." This is easily understood and is entirely rational from a certain standpoint.

During the winter the functions of the organism are not in that active mood which they should manifest. The artificial heat, the avoidance of pure air, the lack of exercise and other similar conditions contribute to torpidity and this in turn acts as a powerful factor in favoring deficient elimination, causing an absorption of a number of waste products left over from retrograde metabolism. These products are of a more or less toxic nature and produce more or less physical hebetude in which there is a condition of tissues analogous to narcotism.

The individual so affected is soon thoroughly aware of the fact and begins to suffer from a thousand and one minor ills which while not alarming or particularly dangerous are sufficiently disagreeable to give rise to a certain amount of uneasiness. With a progressive increase of such symptoms there arises a certain amount of anxiety. Instinctively the individual resorts to methods to clear his organism of these products which are the cause of his trouble. One will take a large dose of calomel, others will take other active cathartics, but the majority will take "spring midicine." Sarsaparilla is a favorite and is regarded as especially efficacious if taken in conjunctlon with aloes. In the country sassafras tea still holds its own in popular favor. In the cities quinine has a number of followers.

But is not the intention here of dilating on any or all of the superstitions entertained in connection with "spring medicine." That the cleaning up of the emunctories and that the re-establishing of proper elimination are necessary at this period is acknowledged and appreciated by all. The proper method of obtaining this end is known to many, but the agents which should be used are not so generally recognized.

To him who has studied the theraputics of modern times and who has devoted some small share of attention to the action of comparatively new remedies, there is nothing more evident than the efficacy of Tongaline for the prompt and thorough elimination of these poisonous secretions, which are accumulated as the result of a failure on the part of the emunctories to properly perform their functions.

On the other hand it is a well-known fact that the excessive accumulation of uric acid in the organism and the deficient elimination of urea are very prominent factors in bringing about conditions always serious and often fatal. It is here again that another agent acts with the happiest results. We all know that lithia and its salts are particularly efficacious in making uric acid soluble and easily eliminated by way of the urinary organs, without in the least producing any disagreeable or untoward symptoms. The great influence of lithia and its salts in the rheumatic and gouty diathesis depends entirely on this and the popularity of lithia waters, undeserved as it may be, is due to this very property, which with them is but feebly exerted.

That concerning which we desire to speak more particularly is a preparation which has proven itself equal to the task and invariably produces the desired results. We refer to Tongaline and Lithia Tablets, a preparation which not only does what is attributed to Tongaline, but to this is added the beneficial properties of lithia. This is a remedy so scientifically combined as to induce those effects which promptly dissipate the symptoms that are so marked in the spring of the year. It brings on that clean sensation which is always secured by a complete depuration of the system and which always follows an increased activity of the emunctories. In fact, it "cleans out" the system, just when the necessity of doing so is particularly demanded. It places the individual in the condition of being endowed with greater resistance, of having tissues better prepared for the demands which may be made upon them and putting vitality upon a much higher level than it has hitherto been. In other words it thoroughly eliminates all the old, foul detritus which has often been accululating for months and it places the organism once more in a condition fit to combat with the demands and to overcome all the wear and tear as well as the fatigue which occurs invariably in the spring.

Those who have had occasion to use Tongaline and Lithia Tablets are fully aware of the truth of our statements and they are the ones who are the firmest upholders of this excellent remedy as a rational "spring medicine."

No remedy can be called good or can be honestly recommended which is purely empirical, but in Tongaline and Lithia Tablets the addition of Lithia to Tongaline presents an ideal combination which does not rely upon its action on the kidneys alone as is the case when lithia salts or lithia waters are administered, hence the kidneys are not compelled to do all the work, but are materially assisted by the extraordinary eliminative action of Tongaline upon the other emunctories and the equilibrium of the system is undisturbed.

ALL ADMIT

that RESINOL OINTMENT is the best local application for Eczema and kindred skin diseases, and as a dressing for burns and other traumatic inflammations it is simply superb. The itching and burning of Pruritus Ani, Pruritus Vulvae, Proctitis, Itching and Inflamed Piles, Marginal Eczemas and Fissures, yield to its soothing influence as if by magic.

Water does not irritate if RESINOL SOAP is used. There is nothing just as good, and beware of the dealer who says so. Resinol Soap cures Dandruff, is fine for the hair, and keeps the skin healthy.

I am using Resinol Soap and Ointment and like them.
WM. ROBINSON, M. D., Chicago, Ill.

Resinol is the best antipruritic I have ever used.
A. VAN DER VELPEN, M. D., Detroit, Mich.

I have used Resinol for several years, and as an antipruritic and antipyretic it has no equal.
WM. B. CRITTENDEN, M. D., Horton, W. Va.

I have used Resinol Ointment and Soap with much satisfaction.
C. S. HALEY, M. D., San Francisco, Cal.

I find Resinol an excellent preparation; as close an approach to being a specific as possible.
WM. CULP BROWN, M. D., Austin, Ill.

I get the best of results from Resinol.
JNO. KURTZ, M. D., Washington, D. C.

RESINOL CHEMICAL COMPANY, BALTIMORE, MARYLAND.

GREAT BRITAIN BRANCH,
97 NEW OXFORD STREET, LONDON, W. C.

CHAS. MARKELL & CO.
AGENTS FOR AUSTRALASIA, SYDNEY, N. S. W.

Sanmetto in Chronic Cystitis, Chronic Urethritis and Pre-Senile Impotence.

To whom it may concern:

This is to certify that I have used Sanmetto extensively in my practice and can recommend it in chronic cystitis and chronic urethritis. I have used it in pre-senile impotence with remarkable and brilliant results. I regard the remedy, after making crucial clinical tests in the above named diseases, as the *sine qua non* of all the remedies in these diseases.

THOMAS M. BROWN, M. D.
Oakland City, Ind.

Dionin is a remedy that is coming to the front for a place as a valuable cough-sedative. The dose is $\frac{1}{4}$ to $\frac{1}{2}$ grn. It quiets cough, and at the same time does not suppress expectoration, and it is remarkably free from any toxic or harmful after-effects. —Dr. S. D. Sour, in Med. Summary.

NEW ORLEANS POLYCLINIC.—Sixteenth annual session opens November 2, 1902, and closes May 30, 1903. Physicians will find the Polyclinic an excellent means for posting themselves upon modern progress in all branches of medicine and surgery. The specialties are fully taught, including laboratory work. For further information address NEW ORLEANS POLYCLINIC, POSTOFFICE BOX 797, NEW ORLEANS, LA.

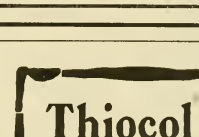
Thiocol Roche

in

Phthisis, Chronic Bronchitis Typhoid Fever

[See Merck's Manual, page 92.]

"I have found Thiocol of more benefit than anything else I ever used in phthisis. In typhoid fever Thiocol is an ideal antiseptic."—J. B. JOHNSTON, M. D., Providence, R. I.



"It is the most active and easily administered derivative of creosote."—MORIN (*Rev. internat. de la Tuberc.*

"It is free from all the disadvantages of guaiacol or creosote. Patients take it without objection for weeks and months."—BRAUN (*Klin.-ther. Woch*).

"No other medicament produces such striking results in phthisis."—PROF. MARAMALDI (*Gazz. Internaz. di Med. Prat.*)

Thiocol Roche is a water-soluble, odorless form of guaiacol. We send clinical reports to physicians.

MERCK & CO. University Place New York

Enervated Brain Workers

Colden's Liquid Beef Tonic

Perfects digestion and nutrition
Supplies normal basis for enduring work
Strengthens nerve forces
Makes sound sleep possible
Enriches the blood
Has a wholesome effect on bile secretion
Aids in discarding blood impurities
And nerve irritants from the system
Is to depressed vital organs
What mother's milk is to a babe.

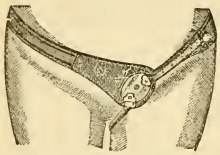
Sold by druggists generally. Be sure your patient gets the genuine
Colden's Liquid Beef Tonic

SAMPLES FREE TO PHYSICIANS.

THE CHARLES N. CRITTENTON CO.
115-117 Fulton St., New York.
Sole Agents for the United States.

Flavell's Elastic Trusses,

Can be Worn Day and Night.



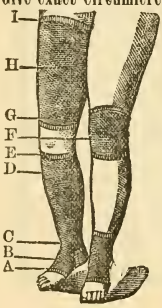
SINGLE TRUSS	Adults
A. Plain	$1.50
B. Fine	2.00
C. Silk	2.50
DOUBLE TRUSS	**Adults**
A. Plain	$2.50
B. Fine	3.00
C. Silk	4.00

PNEUMATIC PADS

Give circumference of abdomen on line of Rupture. State if for Right or left.

ELASTIC STOCKINGS.

Give exact Circumference and Length in all Cases.



NET PRICE TO PHYSICIANS.

	Stout Silk each	Fine Silk each	Thread each
A to E	$2.50	$2.00	$1.50
A to G	4.25	3.50	2.50
A to I	6.00	5.00	4.50
C to E	1.50	1.25	1.00
E to G	1.50	1.25	1.00
A to C	1.50	1.25	1.00

Goods sent by Mail upon receipt of price.

Safe delivery guaranteed.

We Solicit the Physician's Patronage Direct.

Give measure 2 inches below Naval.

State if for Prolapsus, Retroversion, or Anteversion.

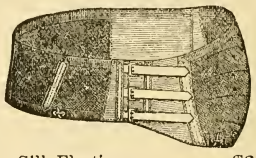
Send your Orders Direct to

G. W. FLAVELL & BRO.,

1005 Spring Garden Street, Philadelphia, Pa.

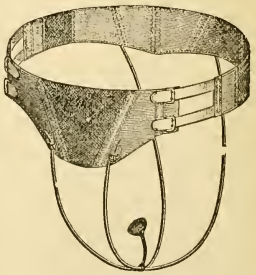
ABDOMINAL SUPPORTER.

Give exact circumference of abdomen at K. L. M.



Silk Elastic.....$3.25
Thread Elastic..... 2.50

Flavell's Uterine Supporter.



NET PRICE TO PHYSICIANS

$2.50

TABLE OF CONTENTS FOR MAY, 1903.

Original Communications.

Should Physicians Use Their Knowledge to Prevent Disease, or Should They Simply Treat Existing Conditions, by J. M. Aikin, M. D., Omaha, Neb..... 297

Some Surgical Uses of Carbolic Acid Not Given in Text-Books of Therapeutics, by Richard E. Lee, M. D., Clinton, N. C.... 301

A Few Cases of Loss of Cornea from Neglected Dacryocystitis, by D. C. Bryant, M. D., Omaha, Neb..... 302

Brief Notes on the Treatment of Ulcerative Tonsillitis, by G. A. Davis, M. D., Summit Point, W. Va..... 304

Lead Poisoning, by Edwin R. Maxson, M. D., Syracuse, N. Y..... 305

Ovarian Tumors, by W. P. Whittington, M. D., Asheville, N. C..... 307

Syphilitic Manifestations in the Mouth, by William F. Bernart, Hot Springs, Ark..... 309

Oil of Yellow Pine, by J. D. MacRae, M. D., Fayetteville, N. C..... 311

Food in Tubercular Cases, by Dr. Chas. S. Jordan, Asheville, N. C..... 312

Surgical Treatment of Tubercular Peritonitis, by D. S. Fairchild, M. D., Clinton, Iowa..... 315

Editorials.

Heart Disease..... 319

Can Bovine Tuberculosis be Transmitted to Man?. 319

Some Interesting Statistics 320

The Relation of Trees to Cancerous Growths..... 321

Perils of Old Age..... 321

Dangerous Medication..... 322

The Decay of the Teeth... 322

Fish Food..... 323

Broadoaks Sanatorium..... 323

Book Notices.

The Surgical Diseases of the Genito-Urinary Organs. By E. L. Keyes, M. D., and E. L. Keyes, Jr., M. D., New York... 323

Surgical Anatomy and Operative Surgery. By John J. McGrath, M. D., New York..... 324

A Text-Book of Legal Medicine and Toxicology. Edited by Frederick Peterson, M. D., New York; and Walter S. Haines, M. D..... 324

Medical Jurisprudence, Insanity and Toxicology. By Henry C. Chapman, M. D., Philadelphia..... 324

Tuberculosis. By Norman Bridge, M. D., Chicago.. 325

Practical Points in Nursing. By Emily A. M. Stoney, South Boston, Mass..... 325

The Care of the Baby. By J. P. Crozer Griffith, M. D., Philadelphia..... 325

The Internal Secretions and the Principles of Medicine, by Chas. E. de M. Sajous, M. D., Philadelphia..... 326

Diseases of the Pancreas, Diseases of the Suprarenal Capsules, and Diseases of the Liver. By Dr. L. Oser, of Vienna; Dr. E. Neusser, of Vienna; and Drs. H. Quincke G. Hoppe-Seyler, of Kiel. Edited, with additions, by Frederick A. Packard, M. D., Philadelphia; and Reginald H. Fitz, M. D., Boston..... 326

Clinical Treatises on the Pathology and Therapy of Disorders of Metabolism and Nutrition. By Carl von Noorden, Part III..... 326

Diseases of the Stomach. By Dr. F. Riegel, of Giessen. Edited, with addition, by Chas. G. Stockton, M. D. 327

The Worth of Words. By Dr. Ralcy Husted Bell. With introduction by Dr. William Colby Cooper... 327

Clinical Treatises on the Pathology and Therapy of Disorders of Metabolism and Nutrition. By Prof. Carl von Noorden, Authorized American edition translated under the direction of Boardman Reed, M. D., Part II.... 327

Literary Notices.

W. B. Saunders & Co., announces the early publication of a number of new books..... 327

The April Review of Reviews..... 328

Abstracts.

Arsenic in the Treatment of Chorea..... 332

A Contribution to the Study of Cancer Mortality..... 334

Adrenalin as a Stimulant.. 345

A Family of Bleeders..... 346

Bacteria in Butter..... 337

Cerebral Syphilis..... 338

Conservative Surgery of the Tubes and Ovaries..... 342

Dimness of Vision in Diseases of the Kidney Characterized by Albuminuria 335

Etiology of Tuberculosis... 343

Fatty Degeneration of the Bladder..... 333

Malarial Fever in Infancy. 331

On Reflex Convulsions in Growing Boys and Girls. 339

On Certain Forms of Menstrual Suffering, and the Action of Permanganate of Potash Therein..... 341

Permanent Effects of the Sanatorium Treatment of Phthisis Among Members of the Working Classes.. 343

Puerperal Eclampsia..... 344

Raw Cow's Milk in Infant Feeding..... 334

Rheumatoid Arthritis as a Cerebrospinal Toxæmia. 338

Rupture of the Uterus..... 340

Syphilis of the Nervous System..... 317

Spontaneous Rupture of the Heart, with a Report of Seven Cases..... 337

Sarcoma of the Middle Ear and Mastoid..... 344

Surgery of Gall-Bladder... 345

The Prognostic Value of Tubercle Bacilli in the Sputum..... 318

The Gelatin Treatment of Hæmoptysis..... 329

The Gas Evolved in the Decomposition of Hydrogen Dioxide by Pus..... 329

The Treatment of Puerperal Convulsions..... 330

Treatment of Trachoma by X-Ray Tube Exposure and by High-Frequency Current..... 331

The Radical Cure of Hydrocele..... 332

The Treatment of Epilepticus..... 333

The Side Chain Theory.... 334

Tumors of the Bladder. .. 335

The Aetiology of Endocarditis, with Especial Reference to Bacterial Agencies..... 336

The Treatment of Eclampsia..... 337

The Prognosis of Tuberculous Peritonitis in Children..... 339

The Surgical Treatment of Cirrhosis of the Liver... 339

The Best Method of Administering Quinine..... 340

The Control of Consumption by the Public Health Authority..... 341

The Radical Cure of Inguinal Hernia with Local Anæsthesia..... 341

The Nature of Hydrosalpinx..... 342

Vaccination and Serum Therapy Against the Bacillus of Dysentery..... 329

The Treatment of Septic Processes by Intravenous Collargolum Injections.

By Dr. Jaenicke, of Apolda. Abstracted from the Deutsche Medicinische Wochenschrift, Feb. 5, 1903.

Upon reception of a puerperal case in the local hospital, the following was noted:

Martha S., 19 years old, medium-sized, moderately well nourished. Temperature 98.8 deg. F., pulse 98, pelvic measurements normal. Foetal head transverse to the pelvic strait, large fontanelle to the right, cervix dilated to half dollar sixe, the edge being thinned, tense and rigid. Pains weak and ineffective, foetal heart sounds very faint. Labor began 2 days before, but had not progressed for 24 hours.

Several incisions were made into the edge of the cervix; the pains improved slightly, but soon relaxed again, fœtal heart sounds becoming weaker. Under anesthesia the head was with great difficulty brought down to the pelvic outlet in the transverse position and finally rotated into the oblique. Child deeply asphyxiated; marked post partum hemorrhage; various vaginal lacerations and one of the perineum to the second degree were carefully sutured. Thorough disinfection.

The first 8 days post partum passed well, save for unimportant temperature variations. Catheterization for retention required from the first. On the ninth day chill and rise in temperature; right parametritis. Usual treatment together with Unguentum Crede instituted. Peritoneum became involved; abdomen greatly distended and very painful; constipation, vomiting; repeated chills. Patient rapidly getting worse; pulse miserable, hurried, hardly palpable and constantly varying. Complete anorexia, mental dullness and mild delirium.

Slight temperature fall by antipyretics and hydriatic measures; but it soon rose again to 104.7 deg. F. Pulse hardly perceptible. 30 grains antipyrin in 12 hours only reduced temperature to 103.3 deg. F. Facies abdominalis; general condition extremely bad.

On the 19th day after admission 2 drams of a 1 per cent. sterilized Collargolum solution were injected with antiseptic precautions into a superficial vein of the right elbow. Two hours later chill and temperature rise to 104.8 deg. F. Exudate hard and firm, reaching as high as navel. Per vaginam a hard, non-fluctuating swelling was plainly palpable on right side. Restless night. Next day slight temperature fall; patient complained much of pain in right arm; otherwise condition unchanged.

Thirty-six hours after injection marked fall to 100 deg. F. and on the following day to 96.8 deg. F. Pulse 96, very weak, but plainly palpable. Pains in right arm increased, extending from fingers to shoulder; nothing visible externally. There was neither redness nor swelling, yet patient cried out at least touch; arm seemed entirely paralyzed. Limb elevated and ice bags applied.

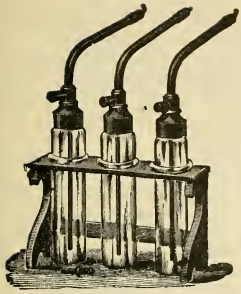
The exudate retrogressed visibly and three days after injection there was complete apyrexia. The mass had entirely disappeared, the abdomen was soft and painless; all that could be found of the effusion were some indurating bands very deeply situated. Arm and shoulder still tender to pressure. On this day temperature rose again; there was pain and swelling of the left leg and a venous thrombosis developed which by the next day spread to the middle of the thigh. 11 days after Collargolum injection she left bed completely cured.

This case shows nothing unusual until Collargolum was injected. It is the ordinary history of a septic parametritis due to parturition injuries, and the prognosis was extremely unfavorable; this opinion was fully shared by a colleague, Dr. Roehler, and by the experienced head nurse.

Dr. Jaenicke has long highly prized Unguentum Crede; and the various communications he saw concerning the intravenous use of Collargolum incited its employment by him. The result was certainly striking. Though fever did not diminish much during the following day, it ceased in 36 hours, and would certainly not have reappeared but for the venous thrombosis occasioned by the shocking debility of the entire organism. And this thrombosis vanished with a remarkable rapidity and completeness. Most marvelous of all was the almost magical disappearance of the exudate. The supposition that perforation into rectum, vagina or bladder took place can be entirely excluded; the secretions and excretions were carefully watched for such an occurrence. Neither Dr. Rohler nor the author can recollect having ever seen such rapid absorption under any other method of treatment.

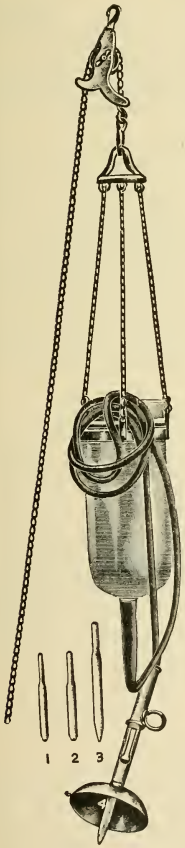
The pain in the arm was a disturbing factor. It may possibly be that part of the fluid was not injected into the vein and escaped into the subcutaneous connective tissues, patient being very restless during the process. At all events, there was no permanent local ill-effect.

Whatever theory we may have as to the mode of action of Collargolum, the fact remains that an entirely hopeless case of septic parametritis was defebrilized in 36 hours and an exudate the size of a child's head was entirely resolved in 4½ days by a single injection.



COMPRESSED AIR APPARATUS COMPLETE WITH SPRAYS EITHER HARD RUBBER OR METAL,

$18.00



The Valzahn Co.'s Improved Valentine Irrigator. The apparatus is so constructed that it can be suspended from the ceiling, and by our automatic chain attachment can be regulated to any height.

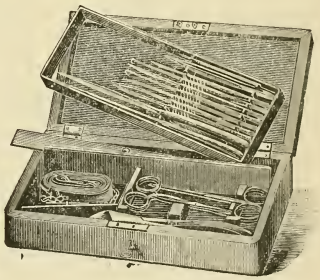
Price complete - - - - - - - $7.50

AMPUTATING CASE

Complete in mahogany case.....$13.00

CONTAINING:

1 Amputating Knife,
1 Amputating Saw,
7 Operating Knives,
1 Dressing Forcep,
All above in metal tray to facilitate sterilizing.
1 Grooved Director,
1 Straight Scissor,
1 Curved Scissor,
2 Halmostatic Forceps,
1 Bone Forcep,
1 Touniquet,
Needles, catgut, silk, probes.



THE VALZAHN CO.

Manufacturers and Importers of Surgical Supplies. ∴ ∴

132 South 11th St. : : : : : : : : PHILADELPHIA, PA.

Send for Illustrated Catalogue.

Report on Creosotal by the Count Spork Hospital of Kukus, Bohemia.

Translated from the Annual Report for 1902.

During an epidemic the hospital had 10 cases of croupous pneumonia. The oldest was 78 and most of them were between 60 and 70, being wasted and debilitated individuals. They all terminated favorably, however, in marked contrast to the accepted mortality in the senile of about 50 per cent. In Basle there were at the same time 129 pneumonia cases with 77 deaths.

The hospital attributes its remarkable experience solely to the use of Creosotal. Infectious pneumonia is usually accompanied by high fever and the usual febrifuges increase the dangers from the heart in the aged. But under the early administration of Creosotal apyrexia is attained in 36 hours at the latest and the cessation of the fever marks the resolution of the process. The patient is entirely cured in the time which it ordinarily takes to reach crisis. The early appearance of the latter at a time when the patient's strength has not been exhausted by long illness justifies the expectation of cure. Creosotal does not only act as a direct disinfectant of the lungs, but as a powerful febrifuge as well.

No antipathy to the remedy on the part of the patient was encountered. The following formula was employed:

Creosotal von Heyden	2½ drams
Spirit vini Gallici	5 drams
Syrup. althaeae	2 ozs.

S. Shake well and administer in 4 doses, either alone or with milk, in 24 hours.

Resolution of the pneumonia which in several cases occurred even before 36 hours, was heralded by a copious perspiration which was always a welcome phenomenon.

Creosotal is recommended on account of its harmlessness and the brevity of pneumonia under its use. Its cheapness is of especial importance in hospital practice.

It was further used for diagnostic purposes in all varieties of lung disease. In tuberculosis the results described above (temperature fall) were not noticeable; hence the drug can be recommended in all cases where there is doubt whether a pneumonia or an acute tuberculosis is present.

We have also tried the remedy in all the various catarrhal affections of the respiratory organs; and we have everywhere had surprisingly favorable results.

As regards the dosage, we administered, according to the severeness of the fever, to children from 1 to 4 years old, 15 to 45 grains daily; from 4 to 6 years old, 45 to 60 grains daily; to children from 6 to 10 years old, 1 to 1¼ drams daily, taken in four equal parts during 24 hours. For adults the daily dose is 2½ drams.

In catarrhal affections of adults 30 grains daily gives very satisfactory results. Children similarly affected should receive from one-third to the whole of the previously mentioned doses.

The remedy was also very valuable in whooping-cough.

Dr. Vincenz Kirsch,
Attending Physician.

Sanmetto in Frequent Incontinence in the In the Aged, In Enuresis Nocturna in Children and in Pre-Senility.

I have had good results from the use of Sanmetto in nocturnal enuresis of children; also have prescribed it in cases of frequent micturition in old people, with marked benefit; also find it beneficial in pre-senility. I think it is a good medicine in all cases where anything of its nature is indicated.

Athens, Pa. S. W. Badger, M. D.

"Superior to forgetfulness." The physician who constantly uses Merck's Manual is never at a loss for the name of the right drug, the right combination and at the right time. This little pocket reference book recalls forgotten therapeutic facts and thereby renders the user superior to forgetfulness. The Manual is an alphabetical materia medica and therapeutics, a complete prescription formulary, a guide to the latest treatment of poison cases, and contains much other information of constant interest to the physician.

The Anasarcin Chemical Co.,

Sirs: I used the trial box of tablets you sent me on a patient who has a dilated heart, enlarged liver and Anasarca. Have tried a great many remedies in the past six or eight months, but your tablets gave the most gratifying results of anything he has taken, so much so that he has directed me to order more at once, for fear they would give out before the others came. Find enclosed $5.00 for which send three boxes of Anasarcin Tablets to the address given below,

Respecfully,
W. W. Pharr,
Newell, N. C.

The Anasarcin Chemical Co.

Sirs: The box of Anasarcin Tablets came to hand and I gave them a trial in a case of a man that three M. Ds. had given up to die, and I am happy to say that he is alive and about town. I gave them one after each meal, and I could see a great change. He has valvular disease of the heart and general Anasarca.

D. S. Adams, M. D.

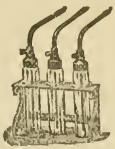
Surgical Chairs.

FEICK BROS. COMPANY.

HEADQUARTERS FOR

SURGICAL INSTRUMENTS and PHYSICIANS' SUPPLIES.

Quality of first importance always, but prices likewise low. A few specialties.



Davidson Atomizers.

Artificial Limbs, Nose and Throat Instruments,

Electric Batteries, Orthopædic Apparatus,

Invalid Supplies.

Elastic Hosiery.

Trusses.

Artificial Eyes.

Braces.

414 WOOD STREET, ... PITTSBURG, PA

ANTIGIA.

THE NEW ANODYNE.

Non-Depressing, Certain and Safe.

Combined in Tablet Form with Codeine Phosphate Quinine Sulphate and Heroin.

Samples to Physicians upon Application.

ANTIGIA CHEMICAL CO.

Richmond, Va.

The Baltimore Medical College.

Preliminary Fall Course begins September 1, 1902.

Regular Winter Course begins September 25. 1902.

Excellent Teaching Facilities; Modern College Buildings; Ideal Lecture Hall and Amphitheaters; Large and Completely Equipped Laboratories; Capacious Hospitals and Dispensary; Lying-in Department for Teaching Clinical Obstetrics; Large Clinics; Send for Catalogue, and address DAVID STREETT, M.D., Dean. 712 Park Ave., Baltimore, Md.

BROADOAKS SANATORIUM,

Morganton, North Carolina.

A Private Hospital for the Treatment of Nervous and Mental Diseases, Inebriety and Drug Habits.

ISAAC M. TAYLOR, M. D.

Dr. Taylor has resigned from the Staff of The State Hospital at Morganton and will in future devote his whole time to the Sanatorium.

An Interesting Report of the Action of Cystogen in a Case of Cystitis of Long Standing.

Mrs. H. R., aged 32, no children, came under the care of Dr. C—— last January. She had been under treatment for chronic cystitis for four or five years; various physicians had charge of the case, but with no appreciable improvement of the patient. The general health of the patient was fairly good, although of a nervous temperament. She would never allow any of her physicians to make a gynæcological examination. The symptoms were as follows: The urine was cloudy and full of a thick, ropy mucus with pus and tube casts. She was compelled to empty the bladder at least every hour and sometimes oftener during the day and from four to six times at night. If this was not done there would be severe pain of a lancinating character and tenesmus. In the morning there would be discharged a large mass of brownish deposits, varying from a pin head to a small pea in size. These stones were not round, but had sharp, jagged edges and often produced hemorrhage and inflammation. There were so many that at times the urethra would be clogged. These conditions had existed for years and the patient was compelled to remain at home the greater part of the time. Various remedies had been used, but with negative results. In January, Dr. C—— had his attention called to Cystogen and he immediately gave it a trial, placing the patient on five grain doses four times daily. For several weeks there was no apparent good results. At the end of the month, however, the pus and mucus began to disappear, and finally the urine cleared up and became normal. The deposits, which were urates were not at first affected, but shortly after the character of the deposits changed. The rough brown stones or deposits disappeared entirely, and there was a discharge each day through the urethra of a quantity of small stones, white and round. These were about the size of mustard seed. They gradually decreased in quantity and finally disappeared at the end of four months. In this case Cystogen had a marked diuretic effect, so that if the patient went out from home in the evening, it had to be discontinued on that day. At the end of six months the patient had improved very materially, the only discouraging feature being that she still had to empty the bladder about every two hours. There was none of the pain, however, that formerly accompanied any attempt to retain the urine. Twice the patient has discontinued the Cystogen and each time the urine became turbid and the former unfavorable symptoms began to reappear. She is now taking five grains of Cystogen after each meal and, while it is not probable that a permanent cure can be affected, yet there is such a marked improvement in the case after years of suffering and ineffective treatment that both physician and patient are greatly pleased with the result.

An Interesting and Excellent Example from the Coast of Maine.

A professional call up on the Maine coast in mid-winter at Ogonquit, York county, furnishes many delightful opportunities for enjoying some of the pleasures of a country doctor's life. On a case of ugly, persistent, nagging cough, in a case of broncho-pneumonia, I had the pleasure of suggesting Glyco-Heroin (Smith) to good advantage. The attending physician, Dr. J. W. Gordon of Ogonquit, one of the able and busy medical men of Maine, related to me the details of a very aged patient who was almost dead from exhaustion with a case of irritable cough due to chronic bronchitis, complicated by hiccoughs, that everything had failed to relieve. The Glyco-Heroin (Smith), in teaspoonful doses, relieved the cough and cured the hiccough magically and permanently; patient was soon able to take nourishment and is recovering rapidly.—From The Medical Mirror, March, 1903.

Sanmetto for Kidney, Bladder and Prostatic Troubles in the Old War Veterans.

I ordered a bottle of Sanmetto to use in a case of prostatitis aet seventy-six years, a veteran of the Civil war and an old pensioner. He has used two bottles besides the one first ordered *and he has now completely recovered.* His statement of these facts in a G. A. R. Post meeting excited an intense interest among Grand Army men and has resulted in several letters of inquiry to myself regarding the treatment of his case. I take pleasure in giving this testimonial of the good Sanmetto will accomplish in these difficult cases of prostatitis, gravel and kidney trouble among Grand Army men. I unhesitatingly prescribe Sanmetto in every case indicated.

J. A. Mead, M. D.
Worcester, Mass.

I have weighed Peacock's Bromides in the balance and not found it wanting as a most efficient remedy for the prompt relief of all nervous excitement, epilepsy, uterine and cerebral congestion, hysteria, neurasthenic and, in fact, any convulsive or reflex neurotic derangement. It can be depended upon always. Alfred R. Schoenig, M. D.
Billings, Mo.

The Charlotte Medical Journal.

VOL. XXII. CHARLOTTE, N. C., JUNE, 1903. No. 6

Tetanus, In the Light of Modern Treatment, With a Report of Three Cases.*

By Lawrence E. Holmes, M. D., Biltmore Asheville, N. C.

Tetanus is a disease which at all times must be one of the greatest interest; it is especially so at this time in connection with the subject of serum therapy, and on account of the various new methods of treatment which have been recently introduced, for all of which more or less extravagant claims have been made, and which for the most part have proven disappointing.

I wish this evening, with a report of three cases, briefly to review the subject of tetanus, particularly with relation to its treatment, and try to determine in the midst of so many conflicting reports and opinions, what, in the light of our present knowledge of the disease and of the various recent methods of treatment, is the proper thing to do when we meet with a case; and what we are likely to accomplish.

Though it is, I believe, a rare disease in these parts, it is nevertheless one with which it behooves us to keep ourselves familiar, for it is extremely important that it should be recognized at the outset, for if treatment is to be of any avail, it must be begun very early in the course of the disease. This is so true, that some observers, advise beginning treatment before the appearance of any symptoms; that is, in a neighborhood where tetanus is not uncommon, they consider it the safest plan to administer a prophylactic dose of the antitoxine, as a part of the routine treatment of all lacerated or punctured wounds which cannot be thoroughly cleaned. The results of this method have, in some cases, been very satisfactory, all the evidence going to show that tetanus has been averted. In certain parts of France, where this prophylactic method has been given a more thorough trial than elsewhere, particularly in veterinary practice, the results have been very encouraging. In Prague, an epidemic of puerperal tetanus in a lying in hospital, is said to have been broken up by this method.[1] Admitting this to be the case, we can safely say that the prophylactic use of the antitoxine is far more satisfactory than is the curative, for, though great things have been claimed for the antitoxine curatively, in looking over the cases recently reported, it is hard to convince oneself that it has any curative power. The explanation of its inefficiency, is probably, the well known fact that the toxine produced by the tetanus bacillus has a selective affinity for the nervous system, especially for the motor cells in the anterior horns of the spinal cord; and when once it has attacked them, the antidote cannot act, since the affinity of the toxine for the cells, is greater than for the antitoxine, though while the poison is in the blood it may be acted upon by the antitoxine.[2]

That the tetanus toxine has a special affinity for the cord has been proven experimentally from the fact that an emulsion made from the anterior horns of the spinal cord of a patient dead from tetanus, after the subcutaneous use of antitoxine, has produced the disease when inoculated into animals, whereas the blood serum of the same patient, inoculated in the same way, failed to produce the disease.[3]

It is not necessary to state that tetanus is produced by a specific bacillus, anærobic in character, which usually gains access into the organism through a wound, more commonly, though not necessarily by any means, a lacerated or punctured wound of the hand or foot. The fact that outside the body the bacilli are found in the soil easily explains the greater frequency of tetanus after wounds of the above regions, especially of the foot.

Tetanus may occur sporadically, almost anywhere; though in some localities the disease is almost unknown; in other places it is edemic; and, in hospitals, may become epidemic, especially is this true of lying in hospitals. The bacilli, outside of the body, are most frequently found around stables and in the soil of gardens, where, it is to be presumed, they are carried in the manure. It has been suggested that they develop in the intestinal canal of horses and cattle, since they are so frequently found in manure; for being anærobic, it is not likely that they develop in the soil. In the body, they are found only at the point of entrance, for, unlike the streptococci in septicæmia, they are not carried in the blood current to all parts of the body, but remain in the wound where they multiply and produce their characteristic toxine, probably the strongest poison known, its toxic power being said to be almost two hundred times as great as that of strychnine. Though most

* Read before the Buncombe County Medical Society, Asheville, N. C.

1 Monthly Cyclopædia of Practical Medicine, August, 1901. pp. 301-303.

2 Rostowtsev, Vratch, Feb. 24th, 1901.

3 E. Von Leyden, Therap der Gegenwart, Aug., 1901.

cases of tetanus are accompanied by a wound of some sort, through which the bacilli gain entrance into the body, in some cases, those of so-called Idiopathic Tetanus, no wound is demonstrable. In these cases it is probable that the bacilli have gained entrance through the mucous membrane of the nose or mouth, for experiments on animals have shown that the upper respiratory tract, offers favorable conditions for the development of these micro-organisms, and the production of the disease, especially when any catarrhal condition is present, which is so frequently the case. As the toxine is produced, it is carried to the nerve centers, chiefly if not wholly, in the blood current. There is some evidence, however, in favor of the theory that it is partially carried to the cord along the nerve trunks, and this might explain the localized muscular rigidity (the so-called local tetanus) which always occurs when the disease is produced experimentally in animals, and is sometimes seen in traumatic tetanus in man. It would also give an anatomical reason for division of the nerve trunks above the wound which was formetly recommended as a mode of treatment in traumatic tetanas. It might also explain those cases, in which the symptoms come on sometimes after the seat of infection has been totally removed, as in Case II. For, if it does not take place at all, transmission of the poison along the nerve trunks must be much slower than through the circulation. The inflamed and congested condition of the nerve trunks sometimes found post mortem, might be explained by the same theory, as the result of the local irritation set up by the toxine. This mode of transmission, however, has never been actually demonstrated.

It might at this time be worth while to refer to the numerous cases of tetanus following vaccination, that have occurred in the past few months. Of course this occurrence has been used as a strong argument against vaccination, by the anti-vaccinationists, and if it could have been traced directly to the vaccination, it would have of course given good cause to hesitate before subjecting oneself to the danger of being inoculated with tetanus. On account of the large number of cases which occurred in Camden, N. J., an official investigation was undertaken, which fortunately proved that in no case could the tetanus be traced to direct inoculation at the time of the vaccination, but was in all probability caused by infection of the vaccination ulcer at a later stage, just as any other wound might become infected, the result of the carelessness and lack of any means of protection, which are so common with vaccination ulcers. It is not necessary to go into all the details which justify this conclusion, but there can be no doubt in the minds of the unprejudiced that it is the correct one. The details of most of these cases have not been published so far,* but in the two cases of which I have seen any report,[5] both were children whose fathers were employed in a stable, where, as is well-known, tetanus germs are frequently found, and this fact might explain the infection in these cases. Though the manufacturers of the vaccine used in the cases in which tetanus followed vaccination, are in no way to be held responsible for the development of the disease, the same unfortunately, cannot be said of the makers of the diptheria antitoxine in St. Louis, the inoculation of which was so speedily followed by fatal tetanus. In those cases the investigation proved beyond a doubt that the disease was produced by the use of anti-diphtheritic serum which had been taken from a horse, which very shortly after developed symptoms of tetanus.[6] A somewhat similar accident occurred in Northern Italy in the early part of 1901, when eight deaths from tetanus followed the use of diphtheria antitoxine. In these cases the antitoxine was prepared at the Serotherapic Institute, Milan.

The hypodermic use of gelatin is another recent therapeutic measure by means of which tetanus may be conveyed to an individual accidentally. A case of this kind has recently been reported from Budapest; subsequent bacteriological examination of gelatin from the same source as that employed, showed it to be infected, though the symptoms of tetanus did not make their appearance until the seventh day after the injection.[7]

There are no characteristic lesions found in the body after death from tetanus. The brain and cord are frequently found congested, this condition, however, being produced by the convulsions; and as above mentioned, the nerves may be red and swollen and softening of the multipolar cells in the anterior horns of the spinal cord has been reported in some cases. In traumatic cases, the wound has no special appearance to distinguish it from a wound uninfected by the tetanus bacillus. In a number of cases reported the wound has healed by first intention, the first symptom of the disease appearing many days later, the wound show-

* See Journal of American Medical Association, May 3, 1902.

5 Willson, American Medicine, Dec. 7th, 1901. Tetanus appearing in Course of Vaccinia.

6 Report of Investigation Commission, Philadelphia Medical Journal, Nov. 30th, 1901.

7 La Semaine Medicale, March 9th, 1902, p. 90.

ing no signs of infection at any time. In Case II the first symptom appeared four days after amputation of the hand for gangrene, following a severe crush and laceration, three days previous to the amputation. The amputation wound healed by first intention and at no time showed signs of the slightest irritation. Yet the patient passed through a characteristic attack of sub-acute tetanus, from which he finally recovered.

It is not necessary to go over in detail the symptoms and diagnosis of the disease. Difficulty in swallowing is commonly one of the earliest symptoms noticed by the patient, though often not elicited without special inquiry, and this should immediately suggest a further examination of the case. In the case of one man I remember, who walked into my dispensary, it was the characteristic expression, the so-called risus sardonicus, that suggested the condition. A week or so, previously he had been at the dispensary complaining of a slight stiffness of the neck, which had been put down to a rheumatic condition. As the rigidity gradually grew more marked, he returned to the dispensary, where, as previously stated, his characteristic facial expression suggested the diagnosis of tetanus, which other symptoms confirmed. (This case has been reported in detail by Dr. G. G. Davis, Annals of Surgery; August, 1898.)

Sometimes the muscles in the neighborhood of the wound of infection will be the first to show the effect of the poison; thus, in a wound in the hand, stiffness may first be noticed in the muscles of the forearm. This condition, however, is rare in traumatic tetanus in man; though, as previously mentioned, it is the rule in tetanus produced experimentally in animals. Usually the throat, jaw and neck muscles are the first to become affected, dysphagia, trismus and cervical rigidity being the earliest symptoms. The rigidity gradually extends involving the muscles of the back, abdomen and legs, sometimes one set of muscles and sometimes another, being more powerfully affected, and thus producing the various positions of orthotonos, opisthotonos, emprosthoxonos or pleurosthotonos. The muscular spasm never fully relaxes, but is greatly exaggerated during the paroxysms. I remember seeing a case in which the opisthotonos was so marked that between the paroxysm the patient's body rested only on the back of the head and the heels, and it was necessary to tie him in bed to prevent his being thrown out by the violent convulsions, which accident actually did occur more than once. This case, severe as it was, finally recovered, after a long and painful illness. (This case has also been reported by Dr. G. G. Davis, Annals of Surgery, August, 1898.)

In the milder cases, the muscles may be uniformly contracted, producing orthotonos in which condition the body is in a straight position, and so rigid that it cannot be flexed in any direction. Emprosthotonos and pleurosthotonos are more rare. In a well marked case, locking of the jaws is absolute, it being impossible to separate them in the slightest degree. In such cases rectal feeding may be necessary, for though liquid nourishment may be poured between the teeth, deglutition cannot take place, and any attempt at it is apt to set up a general convulsion. It is this permanent muscular rigidity that distinguishes tetanus from strychnia poisoning, for in the latter the muscles relax after the paroxysm; in the latter also, the jaw muscles are among the last to be affected, while in tetanus they are affected very early in the disease.

In the very acute cases a convulsion may be the first thing to indicate the onset of tetanus, as in Case I, though usually, if inquiry be made, it will be found that the patient has at least a feeling of constriction in the throat, and probably some trismus may be detected. The convulsions, are of course, of the typical tetanic or spinal variety, in which consciousness is not lost, except as the resalt of the cramp asphyxia, which may be extreme, the fatal termination being not infrequently brought about in this manner. In the more chronic cases convulsions may not occur at any time.

In regard to the prognosis of tetanus, Osler in his Practice of Medicine, published in 1900, says, "Two of the Hippocratic aphorisms express tersely the general prognosis, even at the present day. The spasm supervening on a wound is fatal," and "such persons as are seized with tetanus die within four days, or if they pass these they recover," and this, unfortunately, as a broad statement is only too true, in spite of the various new methods of treatment. The acute cases developing rapidly, a short time after an injury almost invariably die within three or four days, often in much less time, in spite of all that can be done, antitoxine, having apparently no more effect on the disease than any of the other numerous remedies that have been tried in vain. If a case last over five or six days, the chances of recovery are fair, while many of the chronic cases recover.

Like many other new methods of treatment, when first introduced, much was hoped for in the antitoxine treatment, which is, undoubtedly, a step in the right direction, therapeutically, and the early statistics seemed to justify this hope. Lam-

bert[4] in 1897 stated that the mortality of all cases without antitoxine was 60%; with antitoxine 30%. After a longer experience with antitoxine, we know that this statement is altogether too sanguine, and it is scarcely too much to say that in carefully reviewing the subject, it is almost impossible, to make up, one's mind whether the mortality has been materially reduced by the use of antitoxine, though practically, I think, the patient should always be given the benefit of the doubt, and the antitoxine used in every case in conjunction with other methods of treatment, in the hope that it may possibly have some beneficial effect.

The so-called idiopathic cases are more favorable, the mortality being less than 50 per cent.; of the traumatic cases the mortality may be said to be from 60 per cent. to 80 per cent.; the acute cases being almost invariably fatal. Of the 70 cases that I have found reported directly or indirectly, some extremely briefly, in the last 18 months, there were forty-seven deaths, a mortality of over 58 per cent. The treatment varied greatly, but dividing the cases into those in which antitoxine was used (almost always combined with other methods of treatment) and those in which it was not, we find that of the former there were 47 with 32 deaths, a mortality of over 67 per cent.; of the latter there were 33 with 15 deaths, a mortality of over 45 per cent. Of course the number of cases is too small and the details of the cases too meagre, to justify us in drawing any conclusions, but the indications are certainly not in favor of the antitoxine treatment. That many cases recover under its use, is true, but this is true of other methods of treatment; and it may be safely said, that there are very few, if any, of those who have had much to do with tetanus, who have not been greatly disappointed in the serum treatment.

The very number of remedies that have been employed in the treatment of tetanus, is in itself evidence of their powerlessness and unreliability. The treatment of the disease may be divided into the local and general. The local treatment consists in thorough cleansing and disinfection of the wound, if any be present, though it is very doubtful whether this will modify the course of the disease to any great extent, since, in most cases, by the time the symptoms manifest themselves the danger to the nerve cells has been done. Disinfection of the wound may, however, prevent the production of more of the poison and should never be omitted.

Amputation of the limb, if the infected wound be on one of the extremities, has been recommended, but for the same reason as above, as a curative measure, it can be of little use; and rarely if ever justifiable, except when called for by the nature of the injury. As a prophylactic measure, in ordinary cases, it is not, of course, to be considered, though when it comes to the question of primary amputation in severe crushes or compound fractures of a limb, the possibility of tetanus, certainly ought to be considered, and thrown into the balance in favor of amputation, especially in a locality where tetanus is common. It is quite possible that in Case II, it was removing the infected hand that had more to do with the recovery, than anything that was done in the way of curative treatment, though the amputation was performed four days before the appearance of the first symptom of tetanus. This being the case, it again serves to emphasize the greater value of prophylactic measures, as compared with curative.

It is highly probable that if in Case I the woman had been willing to have the crushed limb removed at once, tetanus would not have developed, and her life might have been saved.

The various methods of constitutional treatment may be divided into two classes, which may be designated as the symptomatic and the specific or antitoxic. The former method includes the use of sedatives and depressants of various kinds, the most reliable being the Bromides Chloral, Opium and Physostigma. Innumerable other drugs have been suggested, but are of little or no use; no specific action is claimed for these drugs, but in a certain number of cases they will control the spasms and thus may prevent or at least postpone the occurrence of death from cramp asphyxia. In this way they may aid in bringing about a cure by prolonging the patient's life until the severity of the disease is past, though having no direct action on the course of the disease itself. They are frequently required for their quieting effect, and opium is often necessary for the relief of pain which may be severe.

The specific or antitoxine treatment depends upon the introduction into the system of serum taken from animals immunized to tetanus. Experimentally this method has been far more successful than in actual practice. Those who believe in the efficacy of antitoxine claim that it is given, as a rule, in too small amount; and this is probably true. It is impossible to state the dose in so many cubic centimetres unless one special make is referred to, as the different preparations differ in strength. That put up at the Pasteur Institute, Paris, is

4 Lambert, Annals of Surgery, Dec. 1897.

probably as good as any. Of this from 50 to 100 C. C. or more may be given in 24 hours, not less than 50 C. C. being given at the first dose in a well marked case. The usual method of administering the antitoxine is hypodermically. On account of the many failures in this method, it has been tried intravenously, intraspinally and intracerebrally, the cranium being first trephined. By all these methods the results have been very much the same, and can scarcely be said to justify the various procedures, certainly not those necessary for the intracerebral administration. Of 52 cases treated in this way, 33 died, a mortality of over 63 per cent. This includes acute and chronic cases; out of 24 acute cases, only 3 recovered; a mortality of 87.5 per cent. "When it is considered that in the majority of these cases intravenous and subcutaneous injections of antitoxin were also made and one compares these statistics with those without intracerebral injections," and we might add without the use of antitoxine, by any method, "this new method does not impress one favorably."[8]

In the intraspinal or subarachnoid method, the procedure is similar to that of the ordinary Quincke puncture; the needle being introduced between the 3rd and 4th lumbar vetebræ, 5 to 10 C.C. fluid withdrawn, and then 10 to 20 C. C. antitoxine is slowly injected, the dosage being smaller than in the subcutaneous method of administration. Jacob[9] gives a summary of 12 cases treated in this way; of these 6 died, a mortality of 50 per cent., 3 of the fatal cases being in infants. This, on the whole, is not a bad showing, though of course, the number of cases is too small to justify us in drawing any definite conclusions.

Another method of treatment which may be in some respects considered specific or antitoxic if the Bacelli method, consisting in the hypodermic injections of Carbolic Acid. This has been employed in Italy more than anywhere else, and on the whole, the results have been very favorable. The Carbolic Acid is given in solution, the strength varying from 2 per cent. to 10 per cent. One observer reports a case to which he gave 18 minims of 33 per cent. solution every two hours for six days. The amount commonly recommended is from 5 to 10 grs. in 24 hours.

In a recent article Cioffi[10] quotes statistics showing a mortality of 50 per cent. to 80 per cent. with antitoxine, and from 12 per cent. to 30 per cent. with Bacelli's method, this being certainly a most excellent showing. He says that the dose should never be less than one centigramme (gr. $\frac{1}{6}$) for every kilogramme of body weight (lbs. $2\frac{1}{5}$); 3 grammes (gr. 46) have been administered daily without ill effect. The tolerance for carbolic acid is thus seen to be very marked in this condition; though of course, it is very important to watch carefully for any toxic symptoms. Smokiness of the urine is not necessarily a sign of danger, though the disappearance of the sulphates from the urine is. "Their presence can be determined by acidulating the urine with acetic acid and then adding barium chloride in excess, when we get a copious white insoluble precipitate of barium sulphate."[11]

H. C. Wood, Jr.,[12] says that, "From a study of Italian literature on the subject, it would seem that Carbolic Acid gives better results in tetanus than any other form of treatment."

It may be said that, experimentally, the Bacelli methed has not proven successful. Josias[15] came to the conclusion that it not only does no good, but does positive harm. His experiments were made on goats; of those treated with Carbolic Acid, those having the smallest doses lived the longest, though not so long as those receiving none at all. It may be observed that, in experiments on goats, the subarachnoid injection of antitoxine proved equally useless, death from tetanus occurring in every case, while under the same conditions, dogs recovered, which would seem to indicate that goats have a special susceptibility to the poison of tetanus.

Another recent method of treatment is that by the subcutaneous injection of an emulsion of the normal brain tissue of some animal, that of rabbits or pigs being more commonly used. I have seen no reports of cases treated in this way in this country.

Krokiewicz[13] reports a total of ten cases treated by this method, with only two deaths, which is certainly a very good record. He considers it the most reliable method of treatment, and one deserving farther trial. He made an emulsion of an entire rabbit's brain and injected it. In one case this was repeated four times.

Rostowtsev[14] reports a case where he used 10 grammes pig's brain, rubbed up in normal salt solution. This was repeated several times with final recovery, improvement following each injection. The theory

8 Monthly Cyclopædia of Practical Medicine, August, 1901.

9 Russki Vratch, Jan. 19th, 1902.

10 Riforma Medica, Jan. 20th, 1902.

11 Monthly Cyclopædia of Practical Medicine, August, 1901.

12 Merck's Archives, May, 1899.

15 Medicine Moderne, Oct. 16th, 1901.

13 Wiener Klinische, Wochenschieft, Aug. 9th, 1900.

14 Vratch, Feb. 24th, 1901.

in regard to this treatment is that the tetanus toxine circulating in the blood will attack the nerve tissue in the emulsion, in preference to the nerve tissue of the individual. Admitting this to be the case, it is hard to see how much good could be accomplished, as by the time the symptoms manifest themselves, the damage to the nerve cells has been done; and this explains the fact that antitoxine seems far more reliable prophylactically than curatively.

The introduction into the system of large amounts of normal salt solution, either by hypodermoclysis or intravenous injection, has been recently tried in tetanus, as in so many other conditions, and the reports, as far as they go, seem to be favorable and indicate that it may possibly be of some value by diluting the poison, and aiding in the elimination, though of course it can have no specific action on the disease. Venesection has also been employed, either in connection with or independently of hypodermoclysis or saline infusion, but can be of little value, though in plethoric cases there is no reason why it should not be tried, in connection with other methods. Unfortunately, these methods cannot, as a rule, be employed till the damage has been done, and it is too late.

We have now briefly reviewed the various methods employed in the treatment of tetanus, and have seen how little reliance can be placed on any of them. In the face of all these methods, and knowing that in most cases the chances are against us, whatever we do, what shall be our line of treatment when we meet a case of tetanus? In the absence of any reliable remedy, and realizing the great fatality of the disease, it is only right that we should give the patient the benefit of every doubt and possibility. The wound, if there be one, musi of course be thoroughly cleansed, and in rare cases under certain conditions amputation of a limb might be advisable. The patient must be put in a darkened room and kept as quiet as possible. Antitoxine should be at once freely administered, and continued daily in large amounts, as frequently as the condition indicates. The hypodermic is the simplest method of administration, and probably just as efficacious as any, though the intraspinal may be tried if convenient. At the same time, I should strongly recommend the hypodermic use of carbolic acid, as I know of no reason why the two methods of treatment should not be tried at the same time. Sedatives should be given freely, the amount being determined by the condition of the nervous system, and their effect on the heart. Opium should never be omitted, the more powerful depressants being given as required; but in our efforts to allay the nervous irritability, we must be careful not to depress too much, as it is important to keep up the strength, especially in the chronic cases. During the convulsions, inhalations of chloroform or nitrite of amyl may be tried, but are not of much value, as during the spasms, breathing is so greatly interfered with, that very little of their vapor could reach the lungs.

In some cases, late in the disease, stimulants may be indicated though they should always be administered with caution, strychnine, of course, being avoided under all circumstances, as long as the disease is in its active stages. During convalescence it may be profitably employed.

The question of feeding is often a difficult one. Deglutition is much interfered with, and often impossible, when, of course rectal feeding must be resorted to. To allay thirst, hypodermoclysis of normal salt solution may be freely resorted to, as it causes less disturbance than giving fluid by the rectum, and the fluid is more certain of being absorbed; and besides, the rectum should be reserved for nutritive enemata, which may have to be kept up for some days, so that it is important to irritate it as little as possible.

The subcutaneous injection of brain emulsion may be justifiably omitted, as being in the experimental stage. If we follow the above outline of treatment, we may feel satisfied that we have done the best we can for our patient, whatever the result may be.

The three cases I wish to report were all under my care while resident physician in the Episcopal Hospital, Philadelphia. Case I, was in the service of Dr. G. G. Davis; Cases II and III in that of Dr. H. C. Deaver. The antitoxine employed was all from the Pasteur Institute, Paris, with the exception of that used in Case II between August 14th and 18th, inclusive, and that employed the last day in Case III, this being that put up by Mulford, of Philadelphia. It was all administered subcutaneously.

Many thanks are due to the generous management of the above institution, for allowing the use of unlimited amount of a therapeutic agent whose curative value is, to say the least, more or less questionable. In Case II alone over one hundred dollars worth of antitoxine was used; and they were all charity patients.

Case I: Clara T., aged 50, admitted March 3rd, 1899, for a compound comminuted fracture of the left tibia and fibula, caused by being struck by a train, the tibia was sticking out through the torn stocking, and the soft parts were severely lacerated. It was decided to try to save the limb, so after careful cleansing and putting the bone

in position, it was put up in a fracture box. As was to be expected, suppuration occurred, and the wound was frequently dressed. On March 18th, one week after the injury, at 3 p. m., the patient was suddenly seized with a violent convulsion. After this passed off, rigidity of the muscles of the jaw, neck and back was noticed. The patient then informed us that she first noticed some slight difficulty in swallowing in the morning, and stiffness of the jaw at midday, but had said nothing about it. A diagnosis of tetanus was made at once and 20 C. C. antitoxine given immediately, that being all we had in the house at the time. Three hours later, at 8 p. m. 20 C. C. more antitoxine were given and the same amount repeated at mid-night, about noon the next day, 40 C. C. more were administered. At 1:45 p. m. the same day the woman died in a convulsion. Thus, within 19 hours after the disease manifested itself, 100 C. C. antitoxine were given, yet in 21 hours the patient was dead. Bromides and chloral had been given freely from the outset, first by the mouth and then by the rectum, and morphine hypodermically, but nothing had the slightest effect on the progress of the disease. Numerous general convulsions occurred, during which the face became almost black, respiration being prevented, the pulse running up to 160 per minute; when the spasm relaxed the woman would fall back apparently dead. The convulsions lasted longer each time, death eventually occurring during one, from cramp asphyxia. The highest temperature reached was 101.6, soon after the onset of the disease, and it gradually fell until the time of death.

Case II. John G., aged 20. Admitted July 28th, 1900 for a very severe larceration of the left hand, caused by having it caught in a carding mill. The wound was cleansed and dressed in the usual manner; two days later, as the tissues did not look very healthy, and the odor was offensive, continuous irrigation with a solution of bichloride of mercury was employed. The next day, however, the hand was gangrenous and amputation was advised but refused. The following day, August 1st, however, four days after the receipt of the injury, amputation through the middle third of the forearm was performed.

On August 5th. patient noticed the slightest stiffness of the jaw, though he did not speak of it till the next day, when he had some slight difficulty in chewing his food. Examination discovered slight rigidity of neck and back. A diagnosis of tetanus was made and 50 C. C. antitoxine administered during the day. The next day, August 7th, the trismus, opisthotonos and dysphagia were much more pronounced. The stitches were removed from the wound, which had healed by first intention and showed not the slightest sign of irritation, nor did it do so at any time. 60 C. C. antitoxine were given during the day. On August 8th, the trismus was absolute, the abdominal and back muscles rigid and the back retracted. The patient was unable to swallow even a drop of water, so rectal feeding was begun and continued for three days, by which time he was able to swallow liquids, poured between the teeth, as the jaws were firmly locked and remained so till August 21st, (the 15th day of the disease) by which time they could be separated from $\frac{1}{4}$ to $\frac{1}{2}$ inch, and by August 29th, (the 25th day) about $\frac{3}{4}$ inch. The rigidity of the abdominal and back muscles was as slow in disappearing as that of the jaw muscles. By the 23rd day of the disease the patient was able to sit up for the first time and at the end of the 5th week he left the hospital, though some muscular rigidity was still present. At no time were there any symptoms of great nervous irritability, the patient being quiet and restful all the time, and never suffering; so no sedatives were given.

From August 9th to 13th inclusive, 30 C. C. antitoxine were given daily; from the 14th to 18th inclusive, 40 C. C. daily; from the 20th to 24th inclusive, 20 C. C. daily, and 10 C. C. each on the 25th and 26th. After this date no more was given. Altogether 680 C. C. were given in about 40 different injections, at no time was there the slightest infection from the injections, though a diffuse erythema appeared about the 15th day of the disease, most marked on the chest, abdomen, and back, less so on the face. This lasted for a few days, and then began to fade, totally disappearing in about 8 days. There was no subjective symptoms connected with the eruption.

The temperature during the course of this disease remained around the normal most of the time; only once did it go over 100, and that was on the 6th day when it reached 100.6; the pulse varied from 80 to 120 per minute.

Case III. Joseph F., aged 23. Admitted for tetanus August 12th, 1899. A week previously had stepped on a nail, puncturing the ball of of his right foot. Two days later, the foot became painful. The day before admission he had noticed a slight stiffness of the jaw. On admission the same condition was present, and he complained of a sense of constriction in throat and chest. The foot was tender and somewhat swollen. Treatment was begun at once; the wound was enlarged and thoroughly cleansed, and an incision made into the dorsum of the

foot, but no pus was found; 60 C. C. antitoxine were given the first day in three different doses. The next day, August 13th, trismus was very pronounced; muscular twitchings present; violent general convulsions occurred in the evening. Head was retracted and swallowing impossible, 55 C. C. antitoxine given during the day in three different injections. Bromides, chloral, morphine and eserine were all tried when the nervous irritability became marked, and digitalis was given hypodermically, on account of the depression; nourishment was given by the bowels. On August 14th, the patient was weaker. Muscular twitchings and local spasms occurred and a few brief general spasms, but no severe convulsions. The pulse became rapid and feeble. On account of the cardiac weakness, the depressants were stopped. 60 C. C. antitoxine given during the day. During the night he gradually grew weaker, and died at 2.45 the next morning, August 15th, about 3½ days after the first symptom of tetanus made its appearance. Altogether 185 C. C. antitoxine were given, but had no effect whatever on the disease. The depressants served to have a quieting effect, as no violent convulsions occurred after the system was once under their influence; it is possible that they prolonged life a few hours, as it is quite likely that the case would have terminated sooner, during a convulsion, as did Case I, had it not been for the sedative effect, but they had no effect whatsoever on the outcome of the disease. The temperature varied from 97.7 to 104, which latter was reached shortly before death. The pulse varied from 74 to 140.

These three cases may be taken as more or less typical of the three different degrees, if I may so express it, of traumatic tetanus, the fulminant in which the prognosis is absolutely hopeless; the acute in which it is almost so; and the subacute or chronic, in which the prognosis is more favorable. The proportion of recoveries, one to three may also be considered a fair average, whatever treatment we employ. The futility of curative treatment in the acute cases is also well shown, the case that recovered not being of the acute variety. From observation of this case, I am not at all convinced that the large amount of antitoxine used had anything whatsoever to do with the recovery. As I suggested previously, it seems to me more likely that the total removal of the seat of infection, by amputation, several days before the onset of the first symptoms, had more to do with the recovery than did the antitoxine which was used so lavishly.

Hysterectomy versus Simple Removal of the Lateral Structures, When Operating for Conditions of Universal Pyo-Salpinx, With Especial Reference to the Method of Bi-section of the Uterus. *

By LeGrand Guerry, M. D., Surgeon to Columbia Hospital, Columbia, S. C.

Mr. President and Gentlemen of the State Medical Association:

I offer this paper for your consideration and criticism, because it is the direct outgrowth of five cases that have not been relieved by operation.

We learn more oftentimes from an honest study of our failures than we do by confining our thoughts to the larger, more pleasing lists of successes. I will avoid as near as possible all purely scientific aspects of the subject, for it is the earnest intent of this paper to be entirely practical.

Should there result a full and thorough discussion of the subject, my work would have reaped a rich reward. No man, no honest seeker after the truth ever stands in dread of fair and just criticism.

To bring this subject to a definite issue I will describe as briefly as possible the five cases above referred to, and then endeavor to show the lessons that they teach. Before going farther into this subject, I wish to stress one point, namely: that we are not considering those cases in which it is possible to do the so-called conservative operation on the tubes and ovaries; we shall stick closely to our text—Universal Pyo-Salpinx.

Case I. Mrs. R. A., white, thirty-eight years of age, married, no children. Gave the characteristic history of inflammatory disease of the lateral structures. Vaginal examination revealed the fact that the entire true pelvis was filled with a dense and universally adherent mass of tubes and ovaries. The patient had been a great sufferer; for the past ten years had never been well, and was half the time confined to bed.

An operation was advised and consented to. A median abdominal incision fully verified the former diagnosis. The diseased adnexia were removed and the uterus left behind.

The patient made an uneventful recovery so far as the operation itself goes, but to this day is little or no better. I will not tire you with the details of the other four cases. Suffice it to say that they are in every particular identical with the case just mentioned. Same diagnosis, same condition, same operation, same result.

The reason in these cases for a failure to cure, permanently, is not far to seek; the

* Read before the South Carolina Medical Society.

uterus left behind subinvoluted and fixed in retroversion, continues to be a focus of reflex irritation that insures a continuance of the symptoms.

Do not understand me as saying that all cases operated on this way are not cured; but I do say, most emphatically, that the percentage of failures to cure is sufficiently great, not only to warrant, but to necessitate the adoption of a more radical and scientific procedure. Under this method we have about sixty-five per cent. of cures and we should have nearer ninety-five per cent.

One of the five cases has had the uterus removed at a second operation, resulting in a complete cure.

The experience with these cases has led me to adopt the method that I now employ, a method which is believed to be thoroughly consistent with the pathology of the diseased condition, namely: to remove the uterus by a supa-vaginal amputation along with the lateral structures. There can be no sound, solid surgery apart from pathology; the development of surgery is commensurate with the development of pathology.

It is a self-evident proposition, that to do a thorough operation, we must first understand the nature and extent of the disease that we wish to remove.

The operation is based on the diseased condition; the aim of every operator should be to remove the pathological process. As a matter of practical fact, this position has long since been settled by the leading gynecologists of this country and abroad.

Clark writing in the June number of "Progressive Medicine" for 1902, says: "In cases which were not permanently cured after simple salpingo-oóphorectomy, the patients complained of an irregular bleeding without a true recurrence of menstruation. The subsequent contraction of adhesions about the uterus also induced marked deviation in its location and size; in addition to this there was a free leucorrhea, causing great discomfort and irritation, which in time give rise to more or less severe symptoms.

From these sequelæ the principle was established, that when the tubes and ovaries were sufficiently diseased to require extirpation, the uterus must likewise be removed.

Polk, Pryor, Kelly, Penrose, Baldy, Cushing and others have reported large series of cases with far more satisfactory results than when the simple salpingo-oophorectomy, alone was performed.

So much for this country; in Europe Von Rasthorn, Veitt Bardenhour were removing the uterus with the appendages; all were better pleased with this than with the old plan. While the operation appeared to be a more difficult and dangerous one, in practice it was attended with little greater, if as great mortality; as to the permanent cures, the results were infinitely more satisfactory."

The writer has followed the above principle now in twenty-five consecutive cases without mortality. The last five in the series were operated on by the method of Bi-section of the uterus, and it is to this operation that I wish to call your especial attention.

I believe that in this plan as practiced by Dr. Kelly of Baltimore, we have a method that marks a distinct epoch in the surgery of pelvic inflammatory disease. I will quote verbatim his classical description of the operation. The steps are these: If the uterus is buried out of view, the bladder is first separated from the rectum and the fundus found; then, if there are any large abscesses, adherent cysts, or hematomata, they are evacuated by aspiration or puncture; the rest of the abdominal cavity is then well packed off from the pelvis.

The right and left cornna uteri are each seized by a pair of stout musean forceps and lifted up; the uterus is now incised in the median line in an antero-posterior direction, and as the uterus is bisected its cornna are pulled up and drawn apart. With a third pair of forceps the uterus is grasped on one side on its cut surface, as far down in the angle as possible, including both anterior and posterior walls. The musean forceps of the same side is then released and used for grasping the corresponding point on the opposite cut surface, when the remaining musean forceps is removed. In this way two forceps are in constant use at the lowest point. I commonly apply them three or four times in all. As the uterus is pulled up and the halves become everted, and it is bisected further down into the cervix, if the operator prefers to do a panhysterectomy the bisection is carried all the way down into the vagina. The uterine canal must be followed in the bisection, if necessary using a grooved director to keep it in view. The musean forceps are now made to grasp the uterus well down in the cervical portion, if it is to be a supravaginal amputation, and the cervix is bisected on one side. As soon as it is divided and the uterine and vaginal ends begin to pull apart, the under surface of the uterine end is caught with a pair of forceps and pulled up, and the uterine vessels, which can now be plainly seen, are clamped or tied. As the uterus is pulled still further up, the round ligament is exposed and clamped, then finally a clamp is applied be-

tween the corner of the bisected uterus and the tubo-ovarian mass, and one-half of the uterus is removed. The opposite half of the uterus is also taken away in the same manner.

The pelvis now contains nothing but the rectum and the bladder, with right and left tubo ovarian masses plastered to the sides of the pelvis and the broad ligaments, affording abundant room for investigation of their attachments, as well as for deliberate and skillful dissection; the wide exposure of the cellular area over the inferior median and anterior surfaces of the masses offers the best possible avenue for beginning their detachment and nucleation."

The advantages to be derived from this method may be briefly recapitulated as follows:

First, By getting the uterus out of the way we are given much more roam for dealing with adherent tubo-ovarian masses.

Second, Maximum increase in the facility for managing intestinal complications.

Third, Having the uterus out of the way there is allowed far better access to the adherent lateral structures from below and in front. Here we learn a lesson from the vaginal hysterectomists, for it is claimed by them that by approaching the adhesion mass from below the enucliation is much safer and easier.

Fourth, After the uterus has been bisected the masses can be elevated to the pelvic brim, and oftentimes out onto the abdominal wall which manifestly makes much easier this step of the operation.

Fifth, Maximum room, maximum light and maximum facility is given for the securing and ligating of the uterine vessels by cutting through each half of the cervix to the broad ligaments.

Sixth. As claimed by Dr. Kelly, "the time of the operation is shortened, each step of the operation is conducted with far more accuracy, adjacent structures are far less liable to injury."

I commend this operation gentlemen, most heartily, to your thought consideration, believing that an honest trsal of it will bear abundant fruit.

Chronic Desquamative Nephritis.*

By J. G. Johnston, B. S., M. D., Chester, S. C.

In taking for my subject one so common as Brights Disease, I do not ask an apology; neither do I want to be understood as having a specific for this old and ever-present trouble. It has fallen to my lot to do a certain amount of work along this line for some time, and merely wish to bring out in this paper the methods of treatment employed, hoping a discussion may be brought about in which all of us may be benefited. With these few words of introduction, I will ask you to go with me through the various steps of an examination before we come to the treatment.

The name, Brights Disease, is one that should be marked off the category. It is indefinite and has come to mean so many different things that we must specify exactly what we mean. Consequently, we will take up our subject under the head of Chronic Desquamative Nephritis.

This is a chronic, diffuse hyperplastic process which involves epithelium, and glomeruli as well as causing interstitial changes in the kidneys. It is almost impossible to arrive at a definite conclusion in regard to the cause of this disease. Constant exposure in a cold, damp atmosphere is one cause. Tubercular disease of the lungs also lends its share of victims. The Germans are great believers in the malarial origin of this form of nephritis. In this, as in so many other diseases, alcohol is one of the main causes.

After summing up all these, we must confess that quite a number of the cases have merely passed from the acute into the chronic form of the disease. In this class, it is probable, belong many cases that are due to scarlatina and pregnancy.

The scope of this paper will take in very iittle of the pathology and we will take that up at some other point.

The beginning of Chronic Desquamative Nephritis is very often without symptoms. In some cases you may have some puffiness under the eyes, while in others the first symptom that may bring it to notice is an uremic convulsion or coma.

One of the constant symptoms is the anemia, that peculiar, translucent, waxy appearance, which is almost characteristic of the disease. The general debility of these patients is also very striking. If they are able to walk, they get out of breath very easily and are easily exhausted. However, the extreme swelling may render locomotion impossible. Pain may or may not be present. If so, it is usually in the form of a dull, heavy ache in the lumbar region, more than an acute pain; although at times they have an acute pain, and later have so much weakness that they are hardly able to stay out of bed long enough to attend to their usual duties.

Usually the first thing that attracts attention is the diminution in the quantity of urine excreted. This may be reduced to one-half, or even less than that, with specific gravity normal or below. This urine on standing throws down usually a floccu-

* Read before the South Carolina Medical Association at Sumter, S. C., April 16, 1903.

lent deposit, which is composed of various granular casts, as well as casts containing entire and fragmentary epithelial cells. The quantity of albumin depends on the stage of the disease, from a mere trace to almost becoming solid on being heated.

The normal constituents of the urine are generally diminished. This is especially true of urea, which accounts for the low specific gravity of the urine. In spite of the small amount of urea excreted, uremia is very infrequent, compared to its occurrence in acute Nephritis.

Now, as the disease progresses from the large white kidney to the small white kidney, we have some characteristic changes in the symptoms. The quantity of urine is increased, the specific gravity falling lower than before usually. Quantity of albumin is much diminished. If dropsy was present it diminishes and may disappear. The duration of Chronic Desquamative Nephritis is variously estimated from one to twelve years.

There are two indications to be met in the treatment of this disease, which are:

1. To improve the quality of the blood which has become anemic, besides being loaded with effete material.

2. To combat the symptoms and complications, which are a source of danger and inconvenience to the patient.

The first of these indications is usually deemed met sufficiently well by the administration of iron, in some form. Quinine and strychnine, along with nourishing food of the proper kind and good hygienic surroundings. While iron is regarded by many as almost a specific in this trouble, and while iron does have a good effect on the course of the disease, yet it is often prescribed in the most reckless manner. It should not be given in large doses. Large doses are useless, lock up the secretions, cause headache and increase the danger of uremia. The well known Basham's Mixture seems to be a general favorite, and, in my opinion, you can find no more effective way of giving it. There is, however, one agent that always gives me splendid results when combined with Basham's Mixture. This is Bichloride of Mercury.

If you will now go back with me for a short review of part of the anatomy of the kidney, we may be able to find a reason for expecting good results from the Bichloride of Mercury.

The blood supply of the kidney, as you all know, is from the renal artery. This artery passes into the kidney at the pelvis, divides up into smaller and smaller branches until it reaches the glomeruli enclosed in the malpighian capsule, and from which the uriniferous tubule begins.

Now, taking into consideration the fact that mercury in small doses increases the red blood corpuscles, increases the flow of urine, increases the blood to the kidney, and also is eliminated by the intestinal glands and kidneys. By this means it stimulates them to renewed work while giving them healthier blood to act upon and at the same time giving healthier blood to nourish the cells of the uriniferous tubules as they separate the excrementitious matters from the blood.

In these cases the mercury must be given in conjunction with remedies that are indicated in each individual case. In some, where you have a malarial poison to deal with, arsenic acts nicely in conjunction with mercury. In others, where you have any irritation of urethra or bladder, a combination of Mercury, Basham's Mixture and Elixir of Saw Palmetto Compund is very good.

It is sometimes remarkable the amount of relief this treatment gives to these patients, even in some cases who have only that stiff back that we all hear so much about, with no albumin in the urine.

This paper could be continued indefinitely, if it was the purpose to take up all the drugs used in this affection, as well as the dietetic treatment of same but it was my original intention to refer only to these and to one other methodof treatment combined with the above. I will briefly refer to this and bring this paper to a close, for it is not my purpose to infringe on your patience too much.

The other method of treatment referred to is the employment of electricity in these cases. The writer began the use of electricity merely as a local measure to relieve the painful condition in the region of the kidneys. Soon after, at the next examination of the urine, it gave me much pleasure to find that the albumin was much diminished in quantity, tube casts were not so numerous, and all symptoms were improved. This led me to begin the employment of the agent even where there was no pain and in each case tried so far the results have been satisfactory.

The usual method of applying the agent, is to place over the lumbar region an electrode of block tin, or other bendable metal (so that it may conform exactly to the surface of the body), of sufficient size to cover both kidneys and with a good Static machine give it a wave-like treatment. Of course, the patient must be on the insulated table and one pole of the machine grounded, while the other connects with the electrode on the patient. The slide rods are now pulled gradually apart until the patient gets all he can comfortably stand. Usually they

should never stop nearer together than two inches and gradually lengthen out to four and six. You will probably not be able to give a patient as much as a two inch spark-gap even, at the first treatment, but the capacity of the patient for it seems to grow and you will soon be able to give them the full six inches. It is important to remember that at all times the electrode must be pressed firmly against the skin in order to prevent any painful manifestations. The thinnest material that comes between the electrode and the skin will render the treatment so painful that you cannot get a sufficiently long spark-gap to do the patient any good, and the chances are that it will be so painful that at the time of next treatment the patient will be somewhere else; but given properly it is a source of great comfort to them and you have no trouble in getting them to continue the treatment, as they, themselves, feel that you are doing them good.

Now, Mr. President, not wishing to take up more time, I will say, in a brief resumé, that since beginning the use of electricity in these cases, along with Bichloride of Mercury and Basham's Mixture, as well as any other adjuvant treatment necessary for each individual case, that my results have been very satisfactory indeed, and I hope that in the discussion to follow we may each find some new nugget of truth to help us in our onward march and search for the prevention and cure of this, as well as all other "ills that human flesh is heir to."

Hypertrophy of the Uterus With Report of Case—Operation—Death Twenty-two Hours After Operation.

By L. P. Horn, M. D., President Dorchester County Medical Association, St. George's, South Carolina.

Hypertrophy of the Uterus, including the entire organ, independent of neoplasms, subinvolution or inflammatory action, is an affection so exceptionally rare, as to be scarcely known. And it may, perhaps, be largely due to the fact, that it is so infrequently met with, that authorities on diseases on women do not treat it as fully and as thoroughly as other morbid conditions that pertain to the female reproductive organs. Beyond the admission of its possble occurrence, they have but little or nothing to say. The following quotations from the writings of two very eminent gynecologists, will serve to indicate the manner in which hypertrophy of the uterus is ordinarily treated, and from the exalted position which they occupy in the field of their chosen specialty, I deem it unnecessary that I should quote further from authorities on the subject. Dr. Skene, for instance, in his very excellent and learned work of Diseases of Women, deals alone with cervical hypertrophy, which he discuscusses with consummate ability and thoroughness, but simply refers to hypertrophy of the entire organ as the result of "pregnancy and some of the inflammatory affections." In speaking of hypertrophy of the cervix, he has this to say: "This is a peculiar and rather rare affection. It differs from the enlargement of the entire uterus, which occurs in pregnancy, and in some of the inflammatory affections. The hypertrophy is confined to the vaginal portion of the cervix and is distinct from the enlargement of the supra-vaginal portion, which occurs in connection with metritis, subinvolution and pregnancy. The only change in the structure of the cervix, is in quantity. The length of the cervix is increased, which is the main point in the pathology. Sometimes it is thickened, but not in proportion to the elongation. It is characterized by great increase in length, without increase in the diameter of the cervix." This is doubtless true so far as hypertrophy of the cervix is concerned, but in the case I propose to report—hypertrophy of the entire organ—the elongation was much less in proportion to the thickening, the cervix being but little, if at all, elongated, while it was thickened to twice or three times its normal diameter. Dr. Skene further says of hypertrophy of the cervix, "This is a true hypertrophy, which occurs from causes wholly different from ordinary conditions which produce hypertrophy. * * * It occurs in the unmarried the most frequently, but occasionally in those who are married but sterile." The case I shall report, comes within the last division of Dr. Skene's classification, as she was "married but sterile."

Dr. Garrigues, in his recent and very admirable work on Diseases of Women, thus speaks of Hypertrophy of the Uterus: "An increased size of the uterus, apart from neoplasms, is commonly due to subinvolution or chronic metritis; but it may be due to simple hypertrophy independent of all inflammatory action. The uterus presents abnormally large dimensions, but there is no change in structure. The hypertrophy may be general or partial. General hypertrophy is a very exceptional condition. Partial hypertrophy has rarely its seat in the body." The above brief excerpt embodies all that Dr. Garrigues has to say in reference to hypertrophy of the entire uterus. He then takes up the consideration of cervical hypertrophy, which he treats very fully and exhaustively. With reference to

the pathology of hypertrophy of the uterus, but very little can be said. Neither of the distinguished authors whom I have quoted has anything to say upon the subject. Dr. Skene thus refefers to the pathology of hypertrophy of the cervix: "The only change in the structure of the cervix, is in quantity. The length of the cervix is increased, which is the main point in the pathology." The same, we think, may be very properly affirmed with reference to hypertrophy of the entire organ—that the only change in the structure of the "uterus" is "in quantity," the diameter of the uterus being increased, and constituting "the main point in the pathology." Now with reference to the etiology or causation of the affection. Dr. Garrigues, already quoted, says, with reference to the etiology, that "apart from neoplasms," it "is commonly due to subinvolution or chronic metritis; but it may be due to simple hypertrophy, independent of all inflammatory action." Now we know that simple hypertrophy is the result of excessive nutrition, but why this is so, has never yet been satisfactorily demonstrated. There may be cases that are due to simple hypertrophy, but in our opinion, they are extremely rare, and exceptional instances. Enlargements of the uterus from other causes, such as subinvolution or neoplasms should, we think, be discarded as examples of hypertrophy, since they do not correctly represent that condition. So far as chronic metritis, as an etiological factor is concerned, we believe that a large majority of the cases have their orig in inthat affection, which eventuating in engorgement and induration of the muscular structures of the organ, produces the hypertrophy.

Dr. Skene in speaking of the causation of cervical hypertrophy, says, that, "the fact that this affection is limited to the virgin cervix, makes it appear as if the hypertrophy might be due to neglected functions, but the fact is that its cause is not known." We think this admission of Dr. Skene,s a very philosophical one, and that it will apply with equal truth to hypertrophy of the uterus. We do not regard the diagnosis as a matter of very great difficulty. The history of the case, the symmetry of the tumor, the prolapsus and induration that accompany the affection, should, under a careful vaginal and bi-manual exploration, differentiate it from other abnormal growths to which the uterus is liable. In determining the prognosis, several factors should be considered. The age, physical condition and surroundings of the patient, exercise a very material influence upon the probable result. If she should be young in years, otherwise in good health, with a fair amount of vitality and recuperative power, sanitary surroundings and a possibility of securing perfect aseptic and antiseptic conditions, we may entertain a reasonable hope of success. But, if on the other hand, she should be of advanced age, enfeebled health, diminished vital forces, with unsanitary surroundings, and there should be an inability to obtain perfect asepsis and antisepsis, the prognosis would assume a very grave aspect. Under such circumstances, it would scarcely be justifiable to operate. There is one advantage, however, in the prognosis as compared to the prognosis of other operations upon the uterus—especially when performed for the cure of malignant growths—in the fact that while in the first instance, all liability to recurrence is effectually removed; in the latter, a reproduction of the trouble may occur.

As to the treatment, we would remark that, it will depend, of course, upon the cause, if it can be ascertained. If from chronic metritis, which we believe to be the case in a large majority of instances, the treatment, constitutional and local, proper for that condition should be adopted. But in order to be effective, it should be employed at a very early stage of the affection. After the hypertrophy has advanced to any appreciable extent, we should regard it as an inexcusable waste of time to rely upon therapeutic agencies. The only hope of relief lies in a resort to snrgical interference, extirpation of the entire organ, and this should be done as soon as the diagnosis is unmistakably made out. With this very brief and imperfect resumé of the subject, I shall now report the case to which reference has been made. She was seen in consultation with my young friend, Dr. J. B. Johnston, of St. George's, under whose treatment she had been for about two months. She was a colored woman, Harrit S., about sixty years of age, a nullipara, and had been married about thirty or thirty-five years. For the greater part of her married life, she had suffered from uterine trouble, evidently chronic nutritis, frequently to such an extent as to incapacitate her for labor or exercise. The date at which she became aware of the existence of the tumor, is uncertain, but she was under the impression that it was about two years before her death. During the last twelve months of her life, she had been repeatedly confined to her bed, frequently for several days or weeks at a time, the last four months of which almost continuously so. She was in perpetual pain except when under the influence of opiates. She had been treated by several very competent physicians, but without success. Not being fully satisfied as to the diagnosis, Dr.

Johnston invited me to visit the patient with him with a view to making a careful examination, and if possible, to determine the exact nature of the trouble. I found her condition very unfavorable, in fact, extremely so. She was weak, emaciated, with scarcely any appetite, exhausted from long continued and incessant pain and suffering, and altogether in bad shape. Upon examination, the uterus was fouud to be considerably larger than its normal size—about five inches in length, with a transverse diameter of about three and a half inches. It appeared to be symmetrical, but what seemed to be a little strange, a preponderance of the tumor was lying to the left of the median line. It was hard and firm, and could not be indented with the finger through the abdominal wall. The os was lying at the outlet just within the vaginal entrance, and was somewhat dilated but not sufficiently so to admit of the introduction of the finger. An effort was made to dilate it, the strongest dilators being used, but I believe that the blades of the instrument would have been broken, had sufficient force been applied, without producing the slightest dilation. The cervix, as was the case with the fundus, was considerably hypertrophied, and like the latter, hard and firm, so much so that the strongest pressure with the finger could produce no indentation. A diagnosis of hypertrophy of the uterus was accordingly made out, with the bare possibility of a fibroid tumor, either interstitial, or in the left broad ligament. I thought at one time during the examination, that I detected a line of division between what I took to be the uterus and the preponderating mass on the left side: but it was very indistinct, and the abdominal wall being thickened by an excess of cellular tissue due to her advanced age, I was by no means sure that I was correct. "No man can know what he is going to find in an abdominal cavity until he has opened and looked into it," says a distinguished authority on abdominal surgery, consequently I refrained from expressing a positive diagnosis. The indications in the case were plain—a surgical operation was all that held out any hope of permanent relief. There was nothing else to be done. It was of course entirely beyond the reach of therapeutic resources—even the means that had been, and were being used, to alleviate her sufferings, were becoming inoperative, and the prospect of an early death was evident. The age and condition of the patient, however, were such as largely to detract from the advisability of an operation. We decided to acquaint her and her husband with the dangers attending it, and leave the matter to their decision. They were accordingly mnde aware of the extreme gravity of the operation, the very little hope of a successful issue, and the possibility that she might die upon the table. Notwithstanding the warning, and a full knowledge of the dangers that confronted her, she decided to have it performed, remarking that she greatly preferred death to her present suffering condition. As she was gradually growing worse, preparations were made for an early operation, and on the 19th of March, 1901, it was performed—my young friends Drs. A. R. and J. B. Johnston being present and participating. Every precaution possible under the circumstances, was taken to insure antiseptic conditions, in the surroundings, the preparation of the patient, and the performance of the operation. The site of the incision and vacinity were thoroughly washed and scrubbed with warm water and soap, the hair of the mons veneris being shaved off, the surface dried and sponged with a solution of bi-chloride of mercury 1 to 1000. An incision four inches long was made in the median line, commencing below the umbilicus and terminating at a point one inch above the symphisis pubis, carried down through the cellular tissue to the linea alba, which was caught up with tissue forceps and opened with the knife on the flat. The incision was completed with the scissors on the finger as a guide. The peritoneum was similarly opened and incised. Upon opening the abdomen, a cyst presented at the incision, and as there was a possibility that it might be the bladder, notwithstanding the fact that the patient had just been thoroughly catheterized, in order to remove all doubt upon that point, the catheter was lengthened by the addition of one or two joints, reinserted and carried forward until its point could be felt and seen impinging upon the upper anterior wall of the bladder, thus assuring us that it was not that viscus. The cyst was accordingly ruptured and its contents discharged. The adhesions were extensive and abundant, and required a good deal of time, care and caution in breaking them up. The appendix vermiformis was found lying just to the right of the upper part of the fundus, imbedded in a mass of adhesions. In liberating it, it was completely stripped and isolated. It was consequently ligated and removed. Upon uncovering the uterus, it was found to be very much as determined at the examination. It was about five inches in its longitudinal and three and a half in its transverse diameter. It was lying, however, in a peculiar position. Its transverse diameter was oblique instead of horizontal, the right cornu being considerably above the plane of its fellow on the opposite side,

and giving the organ the appearance of being somewhat twisted. Upon closer examination, the left broad ligament was found to be attached at its uterine extremity, at least three-quarters of an inch below its normal site, and was to the same extent shorter than normal. This discovery explained the peculiar position in which it was lying, and also the fact, observed at the examination, that there was a preponderance of the tumor on the left side of the median line. The most correct and ethical procedure in this case, would have been extirpation, and this course had been determined upon, but the patient at this juncture began to sink so rapidly that it was only by the most persistent efforts that she was kept alive. Several times we were threatened with that opprobrium, so much dreaded by all operators—death upon the table—and it was due alone to the heroic hypodermic administration of cardiac stimulants, that we escaped so undesirable a denoument. Under the circumstances we decided to amputate, believing that method to be the quickest and best means by which to complete the operation. The ligaments were ligated, the fallopian tubes being included in the ligatures, and divided. We encountered considerable difficulty in ligating the left broad ligament, in consequence of its abnormal attachment and diminished length. A ligature was thrown around the uterus just above the vaginal attachment and it was amputated, the site of the ligature being about half an inch below the superior extremity of the stump. There was some loss of blood from oozing, consequent upon the separation of the adhesions, but otherwise there was no hemorrhage worth speaking of. The abdominal cavity was thoroughly cleansed, a piece of sterilized (iodoform) gauze inserted for the purpose of drainage, and the incision closed with sterilized silk sutures, placed at the distance of a quarter of an inch apart—superficial stitches being put in wherever necessary. It was dressed in the usual manner, being dusted with iodoform, covered with a pad of absorbent cotton, and a flannel bandage applied. She was then dressed and put to bed. She was in a comatose condition, with a scarcely perceptible pulse, although the rsspiration was fairly good—relatively better than the circulation. She remained thus until about 8 o'clock p. m., when she rallied, became conscious and conversed intelligently and freely with those around her. The next morning, however, about 5 o'clock, she relapsed into unconsciousness and died about half past eleven—twenty-two hours after the operation. There is one special point of interest in this case, to which I desire to call attention—the abnormal attachment and shortening of the left broad ligament. This was unique, and so far as I have been able to ascertain, no case of the kind has ever been reported. I have, therefore, deemed it of sufficient interest to present to the Association, with the hope, that if the same or a similar condition has ever been observed by any of the members, an opportunity may be afforded to elicit the fact with information bearing upon it.

"Indigestion," an Etiological Factor in Diabetes.*

By Dr. J. Will. McCanless.

Mr. President and Fellow Constituents of the Medical Association of South Carolina:

While a feeling of fear and reserve pervades my being, recognizing the fact as I do, that I am the weakest one among the disciples of Æsculopius—yet, it is with pleasure, that this prerogative is mine—that I can look into the faces of men, from every section of the State, who are giving their time and talent to suffering humanity and are endeavoring to elevate the profession, to the highest ideal of goodness and greatness by research and investigation. I am proud that I sprang from the loins of a man whose ideal was God, and whose love was the alleviation of pain and whose every endeavor was the elevation of the profession.

Like a meteor, he flashed across the sky and dispelled the shadow and gloom in many an humble home, and, at last, went out, into the great beyond, into the presence of Him, whose face is one eternal day. "He sleeps beneath the shadows of the clouds, regardless of sunshine or storm, in his windowless palace of rest," conscious of the fact, that his was a duty well done. It is not my intention, gentlemen, to unfold or reveal some great unknown truth, or discovery—but just rehearse or recapitulate a few facts for your deliberation and discussion, on "Indigestion, as an Etiological Factor in Diabetes."

Indigestion, about which so much has been written and little understood, has been and is the bane of the American people. It is no respector of class or creed—youth or age—but has boldly and without opposition, entered the palaces of the rich, as well as the humblest cottages of the poor and has, without discretion, taken hold of the youthful hand of innocent childhood as well as the palsied and infirm hand of decrepit old age.

* An address delivered before the Medical Association of South Carolina.

Its symptoms are two well known, to need any recapitulation or rehearsal by me.

Eructation, swollen abdomen, palpitation, pains radiating from place to place, headache, and an eternal dread as if something awful were about to transpire, coated tongue, hot flushes—an inactive liver—scanty urine at times, and then too free, and a thousand other symptoms, one would never dream of.

The mad and busy rush of American life, the eagerness to acquire a fortune, in a limited amount of time, eating and swallowing, without mastication, gulping down great quantities of cold water just after eating, and all this without taking time to rest or recuperate lost energies, and the sad ending to this too busy life, is, Indigestion, and a broken down constitution. When food is swallowed without mastication, the gastric juices cannot disintegrate these boluses of food, and when cold water or any other beverage is poured into the already full stomach, the mucous membrane is shocked and paralyzed and refuses to pour out its secretions upon its contents, and hence the food remains there as a foreign body, the ptomaines of fermentation causing an irritation which is not easily remedied. When this condition goes on too longf the nerve centers give away and we have the usual symptoms of an offended nervous system crying out for relief. Headache, because of congestion, produced by the blood being driven from the stomach, by these cold ingesta, to the head, eructation, caused by the ptomaines of fermentation and decomposition, constipation, because the stomach being irritated, has a reflex or sympathetic influence on the liver and it ceases its function and the intestines having lost their nerve force, are partly paralyzed, causing the vermicuto-intestinal movement to cease, which produces constipation, palpitation, because of the inflation of the stomach produced by gases caused by fermentation, which pressed upon the branches of pneumogastric nerve and the heart (like a fish out of water) kicks to get back.

Inactivity means death or decay or loss of function, therefore, when the liver becomes inactive, this causes an atrophy of that organ and hence it loses part of its power, or its function is impaired.

The liver has three functions to perform: 1st, secretion of bile; 2nd, elaboration of blood; 3rd, the glycogenic function. It is right there now, that I desire to prove the heading of this paper.

There is inherent in every healthy individual a power that combats disease of any character—or in other words, there is a war going on all the time between bacteria and the leucocytes, (phogocytosis). When the system of an individual runs down, from any cause, then it is that he is within the power of these bacteria, and whatever they may be, that is the disease to which he must ultimately succumb.

The human system generates its own germicides and when it becomes unable to do this, it must yield to the inevitable.

The system, as we all know, must invariably grow weaker, and less able to resist the inroads of disease, when one has indigestion.

In the healthy individual, the glycogenic function of the liver is all important, because it stores away glycogen in health, which can readily be converted into sugar and ultimately fat, when one is prostrated with disease. In other words it lays up food for future use—it prepares in health what the body must have in disease. This is the Glycogenic function of the liver.

In disease, when one has no appetite, or even if he have an appetite—but is not allowed much food—then it is, that the system calls upon the liver for this reserve to sustain it and this reserve is glycogen, which is converted into sugar and fat, which keeps up the animal heat and strength of the patient.

Now, if indigestion cause an inactive condition of the liver, which ultimately causes it to atrophy—this condition of affairs will lessen the glycogenic function of the liver and what is the result? When the liver fails to store away glycogen in its cells, for future use, this glycogen or sugar must go somewhere, and instead of its being put away as a reserve, it passes on through, is taken up by the kidneys and is deposited in the urine as sugar, hence Diabetes. In this pathological condition the patient invariably suffers from constipation and headache and all the other symptoms concomitant with Indigestion.

It has always been the custom to treat these conditions separately and distinct from each other, but I believe that Diabetes depends upon Indigestion of some type, and is a disease of the liver and not of the urinary apparatus.

In some instances, there may be other organic lesions, which would result in Diabetes, but I believe that in seven (7) cases out of ten (10), if we would stop the indigession—cure it—we would have no need of prescribing and treating for Diabetes. The symptoms are the same in general terms, and I believe that the results would would be all that one would wish for, if he would cure his patient's indigestion. I have treated about 200 patients in the last 18 mouths suffering of indigestion and some of them were diabetic, and

this is the ℞ which has given me better results than all others:

℞ Tinct. vomicæ nucis,	ʒiv.
Brom. soda,	ʒi.
Lach. Pep.,	ʒiss.
Bis. Subnit.,	ʒi.
Listerine,	ʒiv.
Celerina qs.,	ʒiii.

M.—Sig. Teaspoonful one hour after meals.

The stomach generally has lost its tone—the heart is weak and the patient suffers of shortness of breath, for which the nux vom. acts like a charm. The patient, more or less, is nervous and suffers of headache, for which the Brom. Soda is prescribed—the stomach is, more or less, inflamed and in a septic condition, which is relieved by the Listerine, and then as a nerve food and as an adjuvant with the nux. vom. we give the celerina which causes quiet and enables them to rest, when rest is needed.

It sometimes happens that the patient is not constipated, but perfectly regular, in that case you need no laxative or hepatic stimulant, but if you meet one whose bowels follow the general rule of the Diabetic Dyspeptic, and is constipated, then you add a little Podophyllin or Fl. Ext. Cascara, say about 4 or 6 grains of the former, or 4ʒs. of the latter to a ʒʒ mixture and you have an ideal tonic and digestant which has never failed me once. If the patient continues this ℞. for ten (10) days you will notice a marked difference, in his condition as to improvement. Sometimes I add caroid or charcoal to this ℞. and get better results than I do without it, but of course, we alter the ℞. to suit the conditions of the patient.

The constipation, in a measure, is also lessened, by the tonic effect of the nux. vom. by its increasing the peristaisis of the bowels, and acting as a general tonic, upon the hepatic nerve centers, facilitating the secretion of nature's own laxative, the bile. While the above ℞. is given, one hour after meals, there are other remedies which add materially to the convalescence and ultimate recovery of the diabetic dyspeptic. I have prescribed with beneficial results, the arsenite of gold to the diabetic, giving it half an hour before meals, and the above ℞. one hour after meals, and my patients generally recover.

It is appalling when we begin to look round and investigate, the almost inconceivable number we find suffering of the above trouble of Indigestion.

I have had female patients come to me with irregular menses, leucorrhœa, palpitation, and generally run down nervous system, eructations, constipation and a whole catalogue of symptoms, and without stopping for serious and deliberate consideration, one would believe that the trouble was one belonging especially and exclusively to gynæcology, and begin to treat the leucorrhœa, the amenorrhœa, the palpitation, etc., as the fundamental causes of her condition, when, it is not a cause, but the result of a cause, heretofore unrecognized. And when we wake up and begin to treat the cause and not the result, why, our patient begins a speedy recovery.

If a boy comes to me with a nail in his foot, must I prescribe, and begin to apply the different lotions and salves for inflammation? or wouldn't it look more rational for me to remove the nail, and then nature would do the rest, and I would be relieved of the unnecessary preparation of salves, lotions, etc.

It is just the same in Diabetes. Don't especially and exclusively treat the diabetes, but treat the indigestion, the run down nervous system—the cause—and your diabetic will improve. Diabetes, I believe, cannot exist without indigestion of some type or form, but one may suffer from indigestion without necessarily having diabetes. There are certain symptoms which belong to all dyspeptics, then there are individuals who have symptoms peculiarly their own.

The general phenomena are the same, but while one patient may suffer from intestinal torpor and constipation, another may have an intolerable lienteric diarrhœa, so our ℞, must be changed to meet the existing condition—by adding podophyllin for the constipation or camphor. tinct. opii. for the diarrhœa, the other component parts of ℞. acting for either condition.

The histological make-up or anatomy of the liver and kidneys are almost synonymous, or identical, and their functions are similar, since both are secreting organs. When the liver fails to perform its functions, the kidneys take up the work and hence we have an excess of urine, which is another conclusive proof of the caption of this paper, because indigestion, in weakening the hepatic nerve centers, paralyzes that viscus, thereby causing renal congestion, resulting in an increase of urine, diabetic in character. If this condition goes on for any length of time, the liver, for want of its accustomed, physiological action becomes torpid, and because of this torpidity, mummifies or decreases in size, because of inactivity.

Close, clinical observation has proven that most cases of billiousness were brought about, by indiscretion, being an etiological factor in hepatic torpidity, proves to my mind conclusively, that the glycogenic func-

tion is impaired, and being impaired, the renal cells become congested (because of this hepatic torpor) and we have an exaggeration of the normal amount of urine, which, when analyzed, reveals grape sugar.

Now, I do not mean to say that all dyspeptics are diabetic, nor do I wish for you to infer that all torpid livers result in diabetes, for the liver (as has been said) has other duties and functions to perform besides, the all important one, of storing away glycogen.

The bile secreting function is as import ant as the one just discussed, for there are other pathological conditions dependent upon, and superinduced by a sluggish liver.

When the hepatic cells themselves become atrophic and lose their nerve tonicity, and refuse to respond to nature's mandate of secreting bile, then we have a group of symptoms not unlike those of a diabetic, but the results of which would be quite different.

In this condition we have found nothing that proves itself an ideal more than "chionanthus," and we have an ethical preparation, which you all know, that has proven itself a perfect God-send, in this condition and that product is "chionia." Before the hepatic cells become atrophic and hardened there is a stage in which the liver becomes engorged, congested, hypertrophic, and in this condition, we have hepatitis, an inflammation of the cells and connective tissue, and if this continue, then the liver breaks down, atrophies and hardens. Now, chionia does not act like any other laxative or hepatic stimulant, but instead of producing a severe catharsis, it works on the inflamed cellular tissue, bringing back the liver to its former physiological condition, allaying all inflammation and gently stimulating the hepatic cells to perform their duty. And when we add nux. vom. to this ideal hepatic stimulant, we have a tonic, for the sluggish liver, that cannot be equalled, by any other remedy.

The unabating thirst, also, in both diabetes and indigestion, is an indication that the two affections are related very closely, in the one because of the serums being extracted from the blood by the kidneys; in the other because of gastric irritation and because the system being depleted by this patological abstraction of serum, is trying to recuperate and replenish the lost fluid abstracted by these two conditions.

The ravenous appetite also is another indication of the similarity of the two conditions, because the greater the quantity of food that is ingested, the more fermentation we have, thereby resulting in more extensive inflamed conditions, and the system's affinity for the nourishment, which it never acquires (because excreted by the kidneys), calls for more food than is necessary under physiological conditions. In the dietetic treatment of both these conditions, the menu of the diabetic dyspeptic should be very simple and even more limited than simple, for he should not be allowed to fill his stomach to his heart's content and desire, but he should be "cut short" in rations, and in one hour after he has finished his scant meal he will find that his stomach contains as much as he needs and maybe then, more than it is able to rightly dispose of. Simplicity is the rule in the dietetic treatment of the diabetic dyspeptic. Sad, sad indeed, is the condition of affairs in American life, when we begin to compare the anatomical and physiological "make up" of the boy and girl of to-day, with that of the fathers and mothers of half a century ago.

While we may be moving in higher planes of civilization and enlightenment, and are better qualified to understand the mysteries and enjoy the beauties of the starry heavens and by our intellectual progress and march onward and upward, we have thrown back the rusty bolt and opened wide the massive doors which securely held the secrets and mysteries of geology, and for ages, to the world, and while we have with the mighty arm of science and investigation, reached up and taken the lightning as it leaped from storm cloud to storm cloud, and harnessed it so that it obeys our every mandate, yet, with all this, it is with sadness that I must confess that we, as men and women, are degenerating physically.

The little babe as it plays around its mother's knee, can never be greater physically than the mother who gave it birth, because the tree is known by its fruit, and that fruit cannot be any more perfect than the mother tree permits it to be.

The cause of our condition to-day is our mode of living and acting. We are too energetic, we want too much and we spare neither time, talent, nor health, to accomplish our desires, and to acquire and amass a fortune, at the dire expense of the physical man.

'Tis this that causes so many dyspeptics, so many broken down constitutions, so many nervous wrecks, resulting in so many suicides every day, all over the world, and especially in the United States.

And unless "breaks are put on," unless we right about face and change our mode of living and acting, who can tell whither we are drifting, physically?

The power and force of any nation, both Church and State, is in her manhood. Politics and religion cannot be perfect, if sup-

ported and fostered by physical pigmies. The practice of medicine and surgery, the grandest and sublimest mission under heaven, cannot be successfully accomplished and prosecuted by physical wrecks.

We must have men in all these conditions and avocations, men whose physical make up is similar to and synonymous with the parent tree; men whose bodies are perfect, and in the image of Him who spoke the mandate and man became a living soul.

Then as the physical man depends upon what he can properly assimilate so far as diet is concerned, let us see to it that we keep his stomach in such a perfect condition that we shall have no fear, but that the liver will perform its proper function and thereby steer clear of that dread condition of Diabetes.

Some Thoughts on Tuberculosis and the Necessity for a State Sanatorium for the Consumptive Poor.

By A. A. Moore, M. D., Camden, S. C.

In submitting my annual reports to the Executive Committee of the State Board of Health on the State Penal and Charitable Institutions for the years 1897, '98 and '99, allusion was made to the prevalence of tuberculosis in the State Hospital for the Insane and also in the Penitentiary. In the latter of these institutions it had reached the high death rate of about 65 per cent. for each of those years. This together with numerous articles on this subject in the medical journals prior to and since that time has led to some serious reflection, and suggested the preparation and presentation of this paper.

The medical literature of to-day seems to be replete with this prolific theme. And we cannot wonder at it when we remember the world-wide prevalence and frightful mortality of this so-called "White Plague." But let it not be imagined for a moment that the writer expects to advance anything original on this disease, or to attempt its scientific discussion in this presence. By no means, for his object is a different one and will be more apparent as we go on. With no further apology then, for a few arguments and facts borrowed from different sources, we will proceed to its further consideration. In order, however, to more fully elucidate our purpose, it will be necessary to briefly allude to a few of its more prominent and generally acknowledged characteristics.

In the first place is its ubiquity, it being estimated that one-sixth of mankind is tuberculous. No clime nor age seems to be exempt from its ravages, it having been known to the medical writers of all ages from the time of Hippocrates, the father of medicine, down to the present, the opening of the 20th century. And while we reflect upon its wide-spread *geographical* existence, it being found in all parts of the known world, the northermost portions of Norway and Russia perhaps being only slightly infected, we must not forget its *zoologic* distribution. As you are all doubtless aware, its prevalence among many of our domestic animals is well known and admitted. This is especially true and important with reference to the cow, and to a less extent in horses, hogs, goats, sheep, etc. While cats, rabbits and guinea-pigs are habitually used for experimental tuberculosis, we are told that they very seldom contract the disease spontaneously. From these facts, then, we may readily infer what an active agency the animal creation may exert in the maintenance and propagation of tuberculosis in the human race. This is particularly the case with the cow, as we are such constant and large consumers of both her flesh and milk.

Another well recognized fact is its excessive mortality, aggregating more deaths according to some authors than all the other contagious and infectious diseases combined, it being generally conceded now that one-seventh of all deaths on the globe are due to this fearful scourge. Not wishing to weary you with extended statistics, we desire to give here the death rate of only a few foreign, and of three of our own largest cities, to illustrate the point we are now considering. These will exhibit the mortality for each thousand of the living population in 1894, which is as follows: Paris with a population of 2,424,000 had a death rate of 41.6; Lyon, 431,000, death rate 33.6. In Germany, Berlin 1,703,000, death rate 22.3; Hamburg 604,000, death rate 21.1. Other foreign countries: Vienna 1,463,000, death rate 45.4; St. Petersburg, 954,000 death rate 44.3; Glasgow, 686,000, death rate 22.6: London, 5,300,000, death rate 17.3. United States: New York, 1,925,000 death rate 24.1; Philadelphia 1,115,000, death rate 23.7; Chicago, 1,600,000, death rate 13.4.

In the mortality reports of tuberculosis of the Southern States in 1890, it may be somewhat surprising when we state that South Carolina stood fifth as to death rate. The total number of deaths from consumption in this state during that year was 2112, the rate per 1,000 being 1.83. Tennessee was the highest, the total number of deaths from this disease having been 3,637, and the rate per 1,000 2.06. Texas was lowest in the scale, the total number of deaths being 2,059. and the rate per 1,000 only

0.92. Judging from the date above given, we presume that these reports were copied from the eleventh U. S. census.

From these few statistics, some faint idea may be formed as to what an alarming extent the lives of the human race are imperiled by this ever present enemy.

There are two or three other features of this disease to which we will now briefly advert. It is only within recent years, that the doctrine of its *communicability* has been generally accepted, although we find Montano in the 17th, and Morgagni in the 18th century, and a few others then and since who were strong advocates of the theory. It also appears to have been a popular belief toward the latter half of the 18th century.

The bacillus of tuberculosis enters the human body, as is well known, principally through the respiratory and digestive tracts. These are infected in various ways and by different avenues. The former often by inhalation of dried and pulverized sputum of which we have heard so much in connection with the spitting ordinances of many cities. Chas. Dickens once said "Americans are a nation of spitters." The designation is doubtless deserved, as it is said that the enlightened nations of Europe regard the habit as not only unsanitary but ill-bred.

How often have persons previously healthy contracted consumption by occupying rooms that have been formerly inhabited by tuberculous patients. It has been proved too, by experiment that individuals in coughing and speaking throw off spray containg tubercle bacilli.

Knopf in his work on the "Prophylaxis and treatment of Pulmonary Tuberculosis" makes this amazing statement: "An individual suffering from pulmonary tuberculosis is estimated to expectorate as many as seven billions of bacilli in twenty-four hours." We can readily undersiand, then, how certain persons are prône to be infected from sources such as these, and especially those who are naturally feeble, or whose powers of resistance have been impaired by previous disease or other causes. Hence, these examples tend to confirm the belief in *air infection*.

Ingestion is another dangerous and constant mode of infection. This applies to tuberculous food and drink, and especially to diseased milk and meat. These dangers can be partially if not entirely obviated by boiling and cooking. Among the numerous ways by which the digestive organs may be poisoned, is the occasional swallowing of their sputum by consumptives from false modesty or other reasons. Again, it is with much reluctance that we mention to *smokers* the dangers that lurk in cigars and cigarettes made by hand. Doubtless you are aware (for I once saw the operation) that the laborer moistens and fastens the wrappers with saliva, which for aught we know may be from the mouth of a tuberculous subject.

Another social custom which is also fraught with danger, is that of promiscuous *kissing* especially among females, thus imparting disease to one another. While on this point we will remark that it is a piece of history we believe, that President Roosevelt while he was Governor of New York signed a bill excusing witnesses from kissing the Bible when they were sworn before court. This was a judicious health-measure which is worthy of commendation.

Inoculation is still another medium by which tuberculosis is propagated. We will not stop to cite illustrative examples, but will merely mention the dangers incurred by pathologists in handling tuberculous specimens, by physicians in making autopsies and by students in their dissections. Nor can it be denied that it may be disseminated through vaccination.

Warm and strong arguments, pro and con, have been advanced on the question of heredity. Prof. J. M. Anders of Philadelphia, says "Hauser, in an extensive and careful review of all previous work upon this question, reached the conclusion that there are *eighteen* authentic instances of direct inheritance of this disease to be found in the literature. In all of these cases only the mother had tuberculosis." Prof. Loeffler of Greifswald also states that "Transmission of tuberculosis from the fathers has never been demonstrated, even when the disease is general or when the bacilli are in ths spermatic fluid. Tuberculosis is never transmitted through an infected ovum or an infected spermatozoon, but by means of the placental blood." Prof. Virchow also made this emphatic remark, "Until lately a certain dogma was considered indisputable, namely the dogma of inherited tuberculosis. I how definitely dispute this inheritance."

We will next take a very hurried glance at a more cheerful and encouraging aspect of this disease which so largely depopulates our fair earth, and that is its *curability*. That it is curable has been abundantly and clearly proved by both pathological evidence and clinical observation. To be thoroughly convinced on this point, we are told that it is only necessary to visit any of our morgues or dissecting rooms, and carefully watch the autopsies made there, and we will find plenty of ocular proof in the cicatrized

lesions of the tuberculous lungs of subjects who have died of other diseases.

Carswell, said to be one of the foremost pathologist of his time, wrote as follows in 1838: "Pathological anatomy has perhaps never given more decisive proof of the curability of a disease than it has given for pulmonary consumption."

In later years, Andral Rokitowski, Virchow and many others have reported cases of healed tuberculous lesions in persons who have died of other diseases. "Jaccoud even maintains that pulmonary phthisis is curable in all its stages."

Now in reference to clinical observations, it has been learned by inquiry and correspondence with patients who have been treated in both public and private sanatoria, and who have been discharged from these institutions from three to nine years, that they were still well and at their homes at the time of these reports, and some of them have resumed their former occupations. These reports come from such reliable sources as the venerable Dr. Dettweiler of Falkenstein, Germany, Dr. von Ruck of Asheville, N. C., and Dr. Baldwin of Saranac Lake, N. Y. And these results are largely due to hygienic and dietetic treatment under the care and direction of experts in this field.

Following the methods of Knopf and one or two others in treating of this disease, we have endeavored to collate a few facts and theories relative to it, and have hurriedly referred to its widespread existence, its mortality, its communicability and its curability. We will now dwell for a short time on its preventability, and this will involve the subject of *hospital treatment*, and especially for the *consumptive poor*.

It is well known to most or all of you that there are a number of private sanatoria or hospitals for consumptives, principally in the Northern States. As just remarked above, the treatment in these is chiefly on dietetic and hygienic principles, and the *cures* as reported by reliable authorities range from 20 to 26 per cent., and some of them claim as many as seventy per cent. when patients are admitted in the incipient stages. But these institutions are designed particularly for the wealthier class of invalids.

It is a surprising fact, that in this enlightened and progressive age and country, and out of the forty-five States of this Union, oniy two or three have hospitals for the special care and treatment of the *consumptive poor*.

Massachusetts is the pioneer in this philanthropic work. In 1895 she began the agitation of the subject of a State Hospital for the consumptive poor. At first she encountered considerable difficulty, but after showing the urgent need, and great benefit to the State of such an institution, and having enlisted the sympathy and interest not only of the profession throughout the State, but also the co-operation of her legislature, she secured a liberal appropriation of $150,000, and the sanatorium was formally opened by Gov. Wolcott in October, 1898. At first it accommodated 175 patients, but afterwards with an additional appropriation its capacity was increased so that it provided for 250. In the three years of its operation, 40 per cent. of its cases were cured and 50 per cent. improved.

New York next followed the example of Massachusetts, and after much trouble and delay, her legislature finally appropriated a sufficient sum to found a State sanatorium, which we believe is now in operation. We think only one or two States have similar institutions.

Now we ask in all seriousness and earnestness why should not South Carolina have a State sanatorium for her consumptive poor? We must realize that the disease is with us, among both white and colored, and especially among the latter class; and it is a common remark how much more prevalent it is in the negro race since their emancipation than it was during their slavery. Several reasons for this could be given but it is unnecessary to refer to them here, as they will readily occur to you.

As to our own race, is it not indeed a sad and painful reflection when we daily observe so many of our young men and women gradually fading away in the flower of their youth and promise, and also men of more mature years, in the midst of their usefulness, falling victims to this insatiable and relentless enemy? We know that the State has heretofore nobly and generously contributed to the support and care of its existing charitable institutions for its insane, its deaf and blind, we ask is it not also *obligatory* upon her to provide for the founding and maintenance of a senatorium such as we now advocate? We must not forget that while consumption is unquestionably a curable disease in its incipiency, yet it is in this very stage a greater menace and danger to the community, because the subjects are ambulant, and frequent our public halls, churches, theatres, etc., while the more advanced cases are necessarily and more generally confined to their homes and rooms.

Another argument in favor of the *special* hospital is, that when a tuberculous patient is sent to a *general* hospital his treatment will perhaps conflict with that of the larger proportion or all of the other patients in the ward; and besides this, there will be danger of his infecting those who have

been suffering from or debilited by previous disease.

Upon inquiry we learn that the hospitals in Charleston have no special tuberculous wards and we doubt if any of the others in the State have. This would again indicate the necessity for a State institution. But if this proposition is deemed unwise or impracticable, then we would suggest one or more municipal hospitals.

We do not, however, anticipate any early tangible results from this scheme, and it may be regarded as a wild utopian dream, a mere whim of the imagination. Nevertheless, if South Carolina aims to keep abreast of the sanitary progress and reforms of the present time throughout the world, we believe the day is not far distant when she will earnestly grasp this problem, and ultimately rejoice in the proud reality of a Sanatorium for her Consumptive Poor. In conclusion if we can awaken a real interest in this subject, and create some discussion and criticism, the object of this paper will have been accomplished.

Continuous Irrigation Versus Periodic Irrigation in Puerperal Sepsis.*

By A. B. Knowlton, M. D., Columbia, S. C.

Mr. President and Members of the Columbia Medical Society:

It has always seemed to me that if periodic irrigation were of any benefit in puerperal sepis, *continuous* irrigation would be very much better.

What is the actual condition met with in any post-partum septic uterus? An immensely distended organ, most probably relaxed and retroverted, whose blood and lymphatic supply are congested almost to stagnation, and whose recuperative power amounts almost to inertia. Like the defeated Roman gladiator, who for months has trained for the mortal combat, it lies wounded, bleeding and helpless. Let infection occur in such a uterus and only a few hous suffice to make the picture even *darker*. That uterus already crippled by a non-responsive muscalature, and a stagnation of leucocytes, is at once invaded by ptomaines which paralyze her reflex nerve-structure and make her incapable of expelling septic clots and sloughs, and of forming that Heaven-ordained muscular barrier between the intra-uterine infection and the extra-uterine lymphatics. Add to this that most important element in this septic process, viz., the separation of septic sloughs which gravitate to form a cess-pool in the most dependent portion of the uterus, together with the consequent reabsorption therefrom, and you have a condition most pitiable and urgent in the extreme. Does not common sense tell us that in such a case irrigation should be *continuous* rather than *periodic?*

In the average septic uterus this cess-pool of infection is the most formidable feature to be combatted. This condition is frequently, nay, almost *commonly*, aggravated by a retroverted uterus which contributes to a persistent retention and reabsorption of the poison which, though still retained in utero, is in reality an off-cast product. This retention in a septic uterus is, more or less, continuous unless relieved by continuous irrigation, for in such an organ the muscular expulsive power is practically dead and even when *periodic* irrigation *is* practiced the absorption continues between the washings. It should be remembered that what flows out upon the guard in the nature of a discharge is nothing but the surplus or over-flow, and makes exit *only after the dependent fundus has filled to a level of the up-turned cervix.*

Too often have I seen the anxious physician weary, not alone from the anxiety incident to such cases but too from a sense of possible self-liability—*too* often have I seen him torture his patient with repeated curettages, believing that the cause of the trouble lay in intra-parietal sepsis, and absolutely ignore the cess-pool of infection which lay in the dependent uterus from which emanated all his trouble.

The products of sloughed and sloughing intrauterine decomposition resulting from a post partum septic process may be divided into two classes.

1st. Those products which have *some* life and are *still* adherent to the uterine wall—and

2nd. Those products which are entirely sloughed and separated from their mother tissue, the wall of the uterus.

I do not think it can be successfully maintained that a tissue which has life enough in it to enable it to cling to its mother tissue is as septic as one which is dead enough to slough away entirely. It follows then that the most dangerous element in post partum sepsis is this cess-pool of retention. Except when there exists an ante-verted uterus, the appearance of foul matter upon the guard is strong evidence that a cess-pool *has formed* as what has escaped *cannot* be other than the overflow or surplus which has escaped after the material has risen to the level of the up-turned os. It is a physical impossibility for fluid to flow from any cavity until it has first covered its floor and arisen to the level of its first exit.

Given a case of post partum septicæmia,

*Read before the Columbia Medical Society, Columbia, S. C., March 2, 1903.

the first procedure should be a careful curettage, and this should not be postponed longer than the first 24 hours of positive involvement.

After this, continuous irrigation should be instituted and maintained until fever, sweats and rapid pulse disappear.

Let us suppose that we are treating two cases of puerperal fever identical in *every* particular except that in the first case we practice *periodic* irrigation every four hours while in the second we administer it *continously*—is it not evident that in the first case we would have reabsorption between the washings? And is it not equally evident that in the second case reabsorption would be altogether prevented by the fact that all separated sloughs would be washed out as soon as they became free?

The contrast is to my mind a most striking one and has been borne out practically as well as theoritically. I recall one case of puerperal sepsis which would most assuredly have died had I not resorted to continous irrigation. I practiced repeated curettages and administered an intrauterine donche every 3 hours. The patient grew steadily wrose until I stopped both procedures and substituted continuous irrigation. In a case of broad ligament pregnancy taken to my Infirmary I found it impossible to keep temperature and pulse down by even so frequent irrigations as every hour. I substituted continuous irrigation and continued it for nearly two weeks using 100 gallons of fluid every 24 hours. This was necessary so long as the hæmatoma continued to slough. Several attempts to substitute periodic for continuous irrigation were made, the patient's condition becoming worse each time. Both of these cases recovered. I have employed the continuous irrigation successfully in private houses by using only the fountain syringe, the tube of which was constricted sufficiently to permit only a slow flow. I have on one occasion, where it was impossible to obtain sterile water, instructed the family to keep the flow on even if they had to use lukewarm non-sterilized water—in this case, however, bichloride was used by me twice each day. This patient recovered. I believe that those of you who care to adopt this treatment in some future grave case, will not be disappointed in its results.

Medical Education in the United States.*

By Frank Billings, M. S., M. D., Chicago.

One of the chief objects of the organization of the American Medical Association was the elevation of the standard of medical education in the United States. In the president's address, the Father of the Association, Dr. N. S. Davis, stated that "the purpose of the organization was the improvement of our system of medical education and the direct advancement of medical science and practice."[1] That medical education in that day was defective, as recognized by the founders of the Association, is shown by the report of the Committee on Medical Education in the year 1850. The committee said, in part, as follows: "Medical education is defective because there are too many medical schools; the teachers are too few. There are too many students. The quantity of medicine taught is too limited; the quality too superficial, and the mode of bestowal of the honors of medicine too profuse and too unrestricted."

For many years the Association showed its interest in and attempted to influence the elevation of the standard of medical education through a committee on medical education. The Transactions of the Association of the earlier years show many reports of this committee, which display much thought and effort on the part of the Association to improve the status of medical education at that period of time. James R. Wood, as chairman of the committee, in the year 1858, recommended that the various medical colleges of America be requested to send delegates to a convention of medical colleges, to consider the matter of medical education. This movement finally resulted in the formation of the Association of American Medical Colleges, which thereafter represented, to a degree at least, the American Medical Association in its efforts to improve medical education. Later, the Southern Medical College Association was formed. Together these associations represent about 80 per cent. of the regular medical schools of the country, and these colleges have, in a general way at least, fulfilled the minimum requirements prescribed by the rules of the associations in regard to the preliminary education of students, the length of the college course, and the character of the curriculum.

About twenty-five years ago the Illinois State Board of Health, through the splendid

* President's Address, delivered at the Fifty-Fourth Annual Session of the American Medical Association, at New Orleans, May 5-8, 1903.

1. Transactions A. M. A., vol. xvi, 1865.

[Published by Permission of the Association Journal.]

efforts of Dr. J. H. Rauch, its secretary, made a report on the number and character of the medical schools of the country. This board adopted a minimum of requirements of medical schools as a necessary step toward the recognition of their diplomas by the State Board of Health of Illinois. This minimum requirement of the State Board of Health was gradually increased from time to time, with the result that many of the medical schools were obliged to raise the standard of medical education to enable their graduates to obtain licenses to practice in Illinois. Other states followed Illinois in requirements for better methods of medical education, with the result that the standard of education in the country was very much improved.

MEDICAL SCHOOLS OF THE COUNTRY.

In the earlier days of our country, the need of physicians was met by the organization of medical schools which were, as a rule, proprietary in character. These schools attempted the education of physicians on the then existing conditions of medicine by teaching in a didactic way the principles and theories of medicine and surgery. The branches usually taught at that time consisted of anatomy, physiology, chemistry, materia medica, obstetrics, the practice of medicine and of surgery. But little opportunity was offered in the great majority of the schools for extensive, practical teaching in anatomy or chemistry, and but a moderate amount of clinical work in the so-called practical chairs. The course of medicine in the college consisted of two annual sessions of four or five months. The course was not graded. The student attended all the lectures and clinics taught during his first year, and the second year was a repetition of the first. This class of schools was rapidly increased in the course of time. The chief reasons therefor were the fact that it was recognized that a connection with a medical school was profitable, directly and indirectly. The prestige which the teacher enjoyed among the graduates and the laity brought him a remunerative consultation and private practice. In most of the states it was easy to incorporate and obtain a charter for a medical college. It cost comparatively little to conduct and maintain the institution. Lecture rooms were obtained at trifling cost. The dissecting room was not worthy of the name of a laboratory, and the chief expense in maintaining it was the cost of dissecting material, which was usually deficient in quantity and poor in quality. Medical schools were organized all over the country, without reference to the needs of the people. Medical education was prostituted. To obtain a sufficient number of students many institutions showed a most degraded disregard of the moral and mental qualifications of the matriculates. The income of the school was wholly derived from the tuition of students, and no applicant was turned away who had the cash with which to pay his way. To add to the facility of obtaining a medical college course, there were organized in some cities evening schools, the hours of college attendance occuring from 7 to 9 or 10 o'clock at night. These sundown institutions enabled the clerk, the street-car conductor, the janitor, and others employed during the day to obtain a medical degree.

In spite of the general tendency to increase the facility by which a medical degree could be obtained, there was a force at work to improve the methods of medical education. A few older medical colleges and an occasional new one set the standard high in relation to the existing status of medicine. There were earnest, forceful medical men in some of the schools who fought for a higher standard for matriculation and graduation.

The medical college associations exerted a splendid moral influence for good, and the state boards in all the more advanced states have, by mandatory legislation, compelled the colleges to raise the requirements in reference to the preliminary education, the length of the annual session, the time of medical college study, the character of the curriculum, etc. As a result, the status of medical college education has been very much improved in the last twenty, and chiefly in the last ten years. But, improved as it is, there are evils which menace us, the chief of which still are too many medical schools, too many students, and inadequate facilities for the proper teaching of medicine.

The improvement in medical college requirements has increased the cost of the maintenance of the medical college to a degree that it is no longer a profitable financial venture. There can be no dividends. Indeed, the proprietors of the private institution must often make up a deficiency in the annual budget. In spite of this fact, medical colleges have continued to increase steadily.

In 1877 there were sixty-five medical schools in the United States. In 1882 this number had increased to 89, and 1901-2 to 156. The enrolment of students and the number of graduates have also increased, in spite of the fact that the requirements for matriculation and graduation have been increased. In 1882 there were[2] 14,934 matri-

2. The Journal A. M. A., vol. xxxix, No. 10, p. 574.

culates, and this number was increased in 1901 to 26,417, and in 1902 to 27,501, an increase of about 100 per cent. in twenty years.

The number of graduates in 1882 was 4,115; in 1901, 5,444; in 1902, 5,002, an increase of about 25 per cent. in twenty years. If, in 1850, there were too many students, what can we say of the condition to-day?

It has been estimated that there is an average of one physician to 600 of the population of the United States at the present time. The natural increase in the population of the country, and the deaths in the ranks of the profession, make room each year for about 3,000 physicians, based on the proportion of one physician to 600 of the population. With 5,000 or more graduates each year, a surplus of 2,000 physicians is thrown on the profession, overcrowding it, and steadily reducing the opportunities of those already in the profession to acquire a livelihood. The evil of an overcrowded profession is a sufficient cause of complaint, but the cause thereof is the important point for us to consider and, if possible, remove. To correct the evil, the ease and facility with which a medical degree may be secured in this country must be diminished. As before stated, there are now 156 medical schools in the country. Of these, 30 are sectarian, and 136 are so-called regular schools. Fifty-eight are medical departments of universities, of which 24 are state institutions. The relation of the medical school to the university in most instances is a nominal one only. In but few of them is the control of the faculty, or the finances of the medical department, vested in the university proper. In a very few of them the sciences fundamental to medicine are taught in the university. In the majority of these schools these departments are duplicated by members of the medical faculty. In most instances, too, the teachers of the fundamental branches are physicians who devote but a part of their time to teaching. They teach without salary, or for a nominal one only. Their remuneration is obtained by private practice, to which they must devote their best energies, to the detriment of their value as teachers. The clinical department of these schools is, in most instances, wholly inadequate. The majority of such schools depend on the general hospitals situated near them for the privilege of the use of clinical material. Necessarily, these clinical advantages have great limitations, inasmuch as they can not be fully controlled for the purpose of proper bedside teaching, or for scientific investigation. Some of the medical schools which are connected with state universities are situated in small cities where it is impossible to command an adequate amount or variety of clinical material. The connection with a university, which many of the schools enjoy is, therefore, almost valueless in a pedagogic sense. The majority do not differ materially from the private or proprietary schools in their value as teaching institutions. Ninety-eight of the medical schools in the country are private corporations, organized, maintained and, as a rule, owned by the faculty. If, in earlier years, these institutions were sources of direct financial profit to the owners, they have ceased to be so now—at least most of them. The evolution of medicine has made it necessary to extend the laboratory method of teaching. As these schools attempt to teach the whole curriculum, the erection, equipment and maintenance of the necessary laboratories have so increased the cost of conducting the schools that they are usually no longer self-supporting. The temptation is in such schools to conduct them on a plane which shall just comply with the minimum requirements of the various state bodies, which regulate medical practice in the several states. They are maintained ostensibly to teach medicine, but in reality for the prestige which a professorship affords the teacher in his private consultation practice. Proprietary schools depend on general hospitals and dispensaries for clinical material. What was said of the status of clinical teaching of the medical departments of the universities is true also of the proprietary college. These schools can not hope to improve their present standards. The majority attempt to maintain laboratories and other expensive means of teaching which a modern medical education demands. But in how many are laboratories worthy of the name? What kind and variety of instruments and apparatus do they afford? Are their teachers of the sciences of the fundamentals of medicine capable? They cannot hope for better conditions, because the time when a student's tuition will pay the school for his instruction, if he is properly taught, will never return. Medical education of the future must be based on the status of medical science. That basis is recognized now, but is attempted in the great majority of our medical institutions in a very superficial way.

SCIENTIFIC MEDICINE.

The great and important discoveries of Pasteur and the practical methods devised by Koch in bacteriology marked a new era in medicine. Before the facts made clear by these discoveries, the hypotheses and theories of other days have disappeared. Our knowledge of man and the lower animals and of the diseases and evils which

afflict them has been revolutionized within the last twenty years. The advance in medical knowledge has been greater in that period than in all preceding time. Medicine now embraces many more subjects, chiefly fundamental ones, than were known twenty years ago. Formerly a very superficial knowledge of a few isolated facts in general chemistry and human physiology and a memorized knowledge of human anatomy and of materia medica enabled the student to learn the practice of the art of medicine and surgery. Now, the problems which confront the clinician and investigator in medicine and surgery compel him to have a good and working knowledge of general, physical and physiologic chemistry, of general biology, bacteriology, pathology, physiology, embrology, pharmacology, histology and anatomy. The physician who has not a practical knowledge of these fundamental subjects can not clearly understand the methods of others engaged in scientific investigation, nor can he rationally utilize the discoveries of others in his work. Medicine to-day is applied science. If we utilize the knowledge of to-day in an attempt to cure and prevent disease, it must also be an experimental science. No one can practically apply or rationally experiment with what he does not know. The fundamental studies of medicine must, therefore, be acquired by all who desire to successfully apply them as sciences. The successful experimental application of these sciences has given us within ten years a knowledge of the method by which the invading bactera affect the host, and has likewise developed a principle of wide application as a preventive and cure of certain diseases by the use of antitoxic sera. It has confirmed the principle of preventive inoculation, accidentally discovered by Jenner, and has enabled us to apply the principle in other diseases than smallpox. It has enabled us to know the methods of transmission of certain infectious diseases, and to know how to stamp out scourges like yellow fever, the plague and malaria.

Through the evolution of Listerism, it has enabled the surgeon to invade every region of the animal body, and to save scores of lives formerly doomed to death. The freedom with which the surgeon may now operate has not only saved lives, but, indirectly, the knowledge of disease processes so studied during life has taught us many new facts in symptomatology, and has cleared away many fallacies concerning pathologic processes. It has given us many new methods of clinical study, and furnished data from the blood, the spinal fluid, the exudates, the sputa, the sweat, the feces, the urine, which enable us to recognize disease much more readily than before.

Much as has been accomplished by experimental medicine in a comparatively brief period of time, there are vast fields to which the method has not been applied. With most of us, our present methods of clinical observation enable us to do little more than name the disease. In the vast majority of the infectious diseases we are helpless to apply a specific cure. Drugs, with the exception of quinin in malaria, and mercury in syphilis, are valueless as cures. The prevention and cure of most of the infectious diseases is a problem which scientific medicine must solve. What is true of the infectious diseases is also true of the affliction of mankind due to chemical influences within the body. We know but little of diabetes, of the primary blood diseases, or of the various degenerative processes of age and disease. We hopefully look to chemistry to reveal to us the cause of these and other conditions. Experimental medicine must be the means of removing the ignorance which still embraces so many of the maladies which afflict mankind. Not every student, nor every physician, can become an experimenter in applied medicine. Nevertheless, every physician must be so educated that he may intelligently apply the knowledge furnished him by experimental medicine in the cure of such diseases as can be cured. He will no longer juggle with the life of his patient by an attempt to cure with drugs or otherwise, where no help is possible.

METHODS OF MEDICAL EDUCATION.

The phenomenal evolution of medicine has multiplied the subjects of medical study. The character of these sciences requires that that they shall be taught by the laboratory method. The laboratory method, too, has been adopted as the chief method of instruction in anatomy, pharmacology and chemistry, formerly almost wholly taught in medical schools by didactic lectures. The laboratory method, while necessary to the proper and practical instruction of the student, involves an expense which is appalling when compared with the methods of teaching formerly practiced in all schools, and still adhered to in many medical schools. The method is expensive, inasmuch as it involves more extensive buildings, much expensive apparatus and an increase of the teaching force. The instruction must be individual or to small groups of laboratory workers, and this involves also an extension of the time of instruction. A physician engaged in private practice cannot possess and retain the general and technical knowledge necessary to enable him to teach one of the fundamental sciences properly, nor

can he devote an adequate amount of time to it. The teachers of these fundamentals must be investigatiors in the province of their respective sciences. They must give their whole time to the instruction of students and to original investigation. The thoroughness and accuracy of the training of the special senses, and experimenting, which a student will receive from such teachers in properly equipped laboratories, will make him keen in intellect and sound in judgment. His desire for knowledge will be stimulated by the atmosphere of his surroundings, and will awaken in him a consciousness that through him and his work the knowledge of the world will be increased and humanity benefited thereby. But teachers of this character must be paid salaries quite as large as the remuneration of professors in the departments of arts, literature and science. The salaries of such professors and of the corps of assistants which the laboratory method implies make the cost of the university or colleges far beyond the income which could be derived from the tuition of students. I believe it has been estimated that the laboratory method of instruction, now followed by all first-class institutions of learning, costs annually from $400 to $500 per student. But, great as the cost seems, it must be conceded that the present status of medicine demands the thorough instruction of students in these fundamental studies. It matters not whether his future may be that of a teacher or a practitioner of medicine. In either event, he must apply his knowledge of the fundamental sciences to his work, and the result will depend on the thoroughness of his education.

APPLIED MEDICINE AND SURGERY.

To enable the students to utilize the knowledge of a thorough training in anatomy, physiology, chemistry, pharmacology, physiologic and physical chemistry, embryology, neurology and pathology, he should be afforded facilities of equal rank in clinical medicine and surgery. To supply the student with clincal facilities involves several important features. Special hospitals, which would be absolutely under the control of the medical school, would be necessary. The hospital should be constructed with a definite idea of teaching students and of making researches into the nature, causes and treatment of disease, as well as to care for a definite number of patients. Hospitals for general medicine, surgery and obstetrics would be essential. Such hospitals, with laboratories and equipped with instruments, apparatus and library, would cost for their building and maintenance a very large sum of money. With such hospitals it would be necessary to choose the professors of medicine, of surgery, and of obstetrics, with competent assistants, of the same type as the teacher of the fundamental sciences. They should give their whole time to the work of teaching and to original research in the hospital. They should be men who have proved their scientific fitness for the important positions by the contributions they have made to medical knowledge. They should rank with and receive the pay given to professors of important departments in arts, philosphy and science. When so paid, they would be free to expend all their energy to teaching, and to experimental medicine—a career which would enable one to be of the greatest possible service to mankind. No life's work could be fuller or of greater self-satisfaction, and surely none would be more honorable. From these teachers and investigators the student would obtain instruction of the same systematic methods of accurate observation and investigation which were employed in the fundamental branches. He would receive thorough, conscientious drill in the fundamental methods of examination of patients, and his knowledge of the fundamental sciences would be constantly applied in this work. The trained clinical teachers would direct the student in thorough, careful observation in the wards and at the operating table, would collect data to be submitted to experimental tests, and would conscientiously carry out the experiments in the laboratories of the hospital.

The brilliant discoveries which have made our knowledge of the cause and means of transmission of many of the infectious diseases have been chiefly due to the introduction of the experimental method of investigation. Teachers and investigators of the type mentioned will have the opportunity to make equally important discoveries in the broad field of the unknown in medicine. They will train students in the methods of research work and constantly increase the number of investigators in the domain of medicine. And there is need for such men. We may give the great practitioners who have taught clinical medicine their due meed of credit for their excellent, painstaking, unselfish efforts as teachers. They have added to the sum total of our clinical data, have utilized the knowledge of the pathologist and the physiologist in diagnosis, and have tested and judged the worth of therapeutic aids in the treatment of disease. But as teachers they have not made students, investigators or experimenters. Not one of the recent great discoveries in medicine has been made by such a man. He has used as clinical material hundreds of cases of pneumonia, rheu-

matic fever, tuberculosis and chronic diseases by the score; his experience has taught him to recognize these diseases, even when the clinical manifestations are obscure but he is no more successful than when he began to practice, in saving the life of the patient with pneumonia, in preventing endocarditis in rhemutism, in curing tuberculosis, or in checking the advance of a chronic hepatitis. It is time, therefore, that the clinical teacher should have the knowledge necessary to carry on experimental investigation, with hospital facilities for the work that the profession may become purged of the shame of helplessness in curing so many of the common diseases of mankind.

The patients who will be received in these hospitals will be fortunate. They will receivethe painstaking examination and study and the experiments made on animals in the laboratory will benefit the patients directly; inasmuch as more rational therapeutic measures will be applied in cases so investigated. In addition to the clinical teachers, who will devote all their time to teaching and research work in the special hospitals, there will be quite as much need for the clinical teacher, who is in private practice, in the general hospitals. Under his direction the student may himself investigate a hospital or ambulatory case, and undertake the care of the patient. His rich and varied experience in hospital and private practice will enable him to round out the student's college education. He will impart to the student a better idea of medicine as a whole. He will co-ordinate and arrange the isolated facts of clinical and laboratory investigation, and give them their true and relative value. He will teach the student the art of medicine; he will teach him that human sympathy and encouragement of the sick and dying are a part of his duty as a physician.

It would be most practical to make the clinical work of the third year a clinical drill and experimental course, given in the special hospitals, and assign the students of the fourth year to the general hospitals and dispensaries controlled by the medical schools could be utilized in the fourth year for this purpose, and afford the student an abundance of clinical material and the benefit of the experience of many clinical teachers. Many of the assistants in the special hospitals, of the third year course, would doubtless engage ultimately in private practice, and would, because of their scientific attainments, make excellent clinical teachers in the fourth year. A medical school conducted on the high plane advocated must necessarily be under the control of a university. Such a medical school would cost an enormous amount of money, and this can be commanded only by the trustees of a university of the highest order. That the money for the purpose of establishing and maintaining university medical scools with research hospitals and university clinical courses will be forthcoming can not be doubted. The world is awake to the great discoveries recently made in medicine. The wealthy men of this country have had their interest aroused as never before in reference to the possibilities and benefits which medical investigation will give to mankind. They now recognize that they and all posterity will be benefited by every new fact discovered in medicine, and that physicians thoroughly and scientifically trained are necessary to conserve the health of the people.

Three years ago Prof. W. W. Keen, in his address as President, deplored the fact that medical schools received relatively little aid in the form of endowments as compared with universities and colleges of philosophy, art and theology. Since that time several millions of dollars have been given for medical education and scientific research. The signs of the times point to a brighter future of medicine in America.

EDUCATION PRELIMINARY TO MEDICAL STUDY.

The subject of the educational requirements for matriculation in medical schools has been discussed at many meetings of this Association in its earlier years, and later by the college associations, by the American Academy of Medicine and by the various state boards of health.

The requirements were at first lamentably low and the efforts of the Committee on Education of the American Medical Association and the college associations had but little effect, because they possessed no legal power to control the schools.

The influence of the various boards of health of several states, notably Illinois, was more marked, inasmuch as these state boards possessed a mandatory power. The colleges were forced to adopt the minimum educational requirements of the state boards of health if their diplomas were to be recognized by the respective state boards.

These moral and legal influences to improve the preliminary requirements were almost nullified by the practice of a majority of the medical schools in admitting students whose educational status was examined into and judged by a committee of the college faculty.

This practice is still followed by a majority of the medical schools, and results in the admission of many students who are unable to fulfill the prescribed requirements. As a subterfuge, students are often matricu-

lated conditioned in one or even several subjects. Then the student and the faculty committee forget all about the subject, and the student completes his course, goes into practice, and dies with the conditions still undischarged.

The present requirements of the college associations and of the various state medical examining boards and state boards of health amount, on the average, to a high-school education. The curricula and length of course of the high schools of the different states, and even in the same state, differ very substantially. However, if the medical schools now in existence would honestly require as a minimum education the diploma of a high school, without regard to the rank, it would be a marked advance over the present requirements as practiced by most schools.

We must admit, too, that there are medical schools of such a low educational grade that they have no right to demand of their matriculates as much even as common school education. This fact that low-grade medical colleges exist is one of the most satisfactory explanations of the difficulty encountered in elevating the standard of preliminary requirements.

To get at the root of the matter the medical college must be brought up to the proper educational standard, and then only, can be made a proper preliminary educational requirement.

UNIVERSITY MEDICAL COLLEGE.

The present status of medical science requires and demands a university medical college course. By university medical college is meant a medical school which is directly connected with and a part of a university; the university fixing the requirements and controlling the admission of students to the medical department. The method of teaching both the fundamental and clinical branches is on the principles outlined above. To properly prepare for such a course the student should have, as a minimum preparation, at least two years of study in a good college or university. The requirements to enter a good college or university would insure a sufficient knowledge of the ordinary school branches and also Latin or Greek. During the two years' course in college his time would be well spent in the study of English, French, German, mathematics, history, philosophy, physics, chemistry, general and organic, and qualitative analysis, comparative anatomy and general biology. The amount of time to be devoted to each of these subjects would be the same as that of students of general science, as arranged in all college curricula, with the exception of a much more thorough course in chemistry, biology, physics and comparative anatomy.

So prepared, the medical matriculate would be able to grasp all the intricacies of the subjects of the fundamental branches of medicine. With the addition of the full medical college course, as outlined above, his education would be equal in culture to that of the graduate in arts and philosophy. At the same time, it would be practical and especially fit for him for his work as a scientific investigator or practitioner, or for both.

With the medical profession so educated a physician would be in truth, a member of a learned profession. From an educational point of view he would rank as an equal with the scholar in philosophy, law and theology. As a man he would be recognized as the greatest benefactor of mankind.

With the establishment of university medical schools the first two years of work in the medical school will consist of courses in pure science. Then, doubtless, all universities will adopt the plan which two or three universities have already put in practice. That is, that the student who completes the two first years of the science course of a university, or at a college of good standing, may enter the sophomore year of the university and take the first two years' work in medicine, as the sophomore and senior years of the bachelor's course, when he would receive the degree of S. B. The student who completes the three years of the arts or philosophy course at a university, during which he should take a large amount of work in physics, chemistry and biology, could then enter the medical college and after two years receive the degree of A.B. or Ph.B. After two years spent in the clinical school he would receive the degree of M.D.

This telescoping of the literary and medical courses affords the advantage of an economy of time, while it does not in any way lessen the value of the result to the student. In the one case the student secures the degrees of S.B. and M.D. after about six years of study, and in the other degrees of A.B., or Ph.B., and the degree of M.D. at the end of seven years' study.

THE OUTLOOK OF MEDICAL EDUCATION IN THE UNITED STATES.

Medical education must advance to its proper level if it complies with the present status of the medical sciences and the demands which continued evolution in medicine promises.

What does this imply? It means that the private—the proprietary—medical school which is conducted for commercial

reasons must go. Acknowledge, as we must, the great value which the best of these schools have been to the profession and to the country, all such schools have lived past the time when they can be of value. The continuation of these institutions henceforth will be harmful. They can not command the money to build, equip and maintain the laboratories and hospitals which a proper and adequate medical education demands. In the past their graduates have furnished the many great and influential medical and surgical clinicians of this country. In former days a graduate poorly prepared has been able, by indefatigable labor and post-graduate work, to place himself in the front rank as a clinical physician and surgeon.

To-day medical science demands primary instruction to fit a man as an investigator and scientific physician. If not properly educated he can not grasp the great problems which medicine presents to-day as he did the more simple clinical facts which comprised the art of medicine and surgery a few years ago. In the future medicine must be taught in the large universities of the country and in the state universities which are situated in or near large cities, where an abundance of clinical material may be commanded.

The state university and the college which desires to teach medicine, and is so situated that it can not command clinical material, should confine itself to teaching the sciences fundamental to medicine. These should be taught as pure sciences, and should be included in the course for the degree of S.B. A college or state university ambitious to teach the medical sciences can do so without great cost. To attempt to teach applied medicine without proper and adequate hospitals, and with an insufficient number of patients, would be irrational, nor can they command the necessary funds with which to do it. From such colleges and state universities the students could go to the larger institutions which are able to furnish the proper facilities for teaching applied medicine and surgery.

The general hospitals of many of the cities, now used by proprietary schools, could be utilized as clinical schools for both undergraduate and post-graduate teaching, conducted by the clinical teachers in the existing proprietary schools. Indeed, these hospitals could be utilized as university extension clinical courses. Necessarily they would have to be under the control and direction of a university medical school.

How many schools may be necesssary to educate the number of doctors of medicine required annually in the United States? The question one can not answer, but it is safe to say that 2,500 graduates annually will fully supply the demand. This would imply about 10,000 to 12,000 matriculates. A minimum number of twenty-five and a maximum number of thirty-five medical schools should offer sufficient facilities to educate 10,000 students. The various state universities and the colleges which offer adequate science courses would educate a great number of students in the fundamental branches, or in the first two years of the medical course.

MEDICAL RECIPROCITY BETWEEN THE STATES OF THE UNION.

The low requirements of some medical colleges, and the want of uniformity in the requirements for a license to practice in the different states, has resulted in a condition which entails much hardships on a physician who desires to remove from one and to engage in practice in another state. The rules of most state boards of medical examination and of health are so stringent that a physician or surgeon of years of experience and of acknowledged skill and education, and the specialist who may be renowned in his field of work, are obliged, like the recent graduate to take an examination in all of the branches of medicine and surgery in order to secure a license to practice in the state of his adoption.

To correct this evil it has been suggested by a member of the American Medical Association, and concurred in by others, that a national board of medical examiners be organized; that the board hold examinations at different seasons of the year in the various large cities, and that the diploma so obtained shall be recognized as a license to practice in any one or all of the states and territories. The measure suggested seems to be practical and feasible.

In addition to this plan, it remains to be said that the degree granted by the future university medical school will be undoubtedly recognized as an evidence of fitness to practice in any state in the Union. When we shall have a less number of schools and annual graduates the various states may safely and rationally become more liberal and discriminating in the conduct of their office.

THE INFLUENCE OF THE AMERICAN MEDICAL ASSOCIATION.

The American Medical Association should maintain its interest in the elevation of the standard of medical education, one of the chief reasons of its organization. Its influence in former years was principally moral. This was of considerable value, for the reason chiefly of the high ideals of the founders and first members of the Association, who

advocated and fought for a higher standard of medical education. In the future its influence should be many fold that of the past, for with the reorganization of the profession, the better methods of conducting its affairs, the increased and probably very large membership, and its great medical journal, it should wield a great influence for good.

As the direct agent by which the American Medical Association may exert its influence in the elevation and control of medical education, the Committee on Medical Colleges and Medical Education should be made permanent and should be given adequate power and sufficient annual appropriation to make its work effective.

This Association should, therefore, stand for, and should use its whole power to improve, medical education in this country. It is said that we never exceed our ideals in practice, and that if we lower our ideals our conduct sinks to a lower level.

The American Medical Association should take as its ideal and standard of medical education the university medical college, with all the name implies in regard to the fundamental medical sciences, and to the clinical branches. It should use its influence to drive out of existence those proprietary medical schools which are conducted solely as money-making institutions. These measures can not be accomplished at once; but medical science demands it, the profession demand it, the people demand it, and look to the American Medical Association as the chief influence which shall accomplish this end.

Fixation of the Prolapsed Kidney.*

The author submits a technique of his own employed with uniform success for three years, and argues that the many modifications of the operation prove its necessity and the inadequacy of all mechanical appliances as belts and corsets, except in cases where the kidney has not descended below the border of the last rib in front to prevent further descent, and after operation to support the abdominal organs and insure a feeling of greater security to the patient.

The indications for operation are prolapse of the kidney to the third degree, viz: when the kidney has descended below the border of the lower rib in front, and the upper pole can be palpated when the patient is in the erect position, because it is then an anomalous condition that should not exist and is not conducive to either health or comfort. In addition, the position of the kidney interferes with its circulation and function and with the flow of urine from the kidney, and by compression of the ovarian vein which it overlaps gives rise to pelvic disease.

He emphasizes the importance of careful preparation of the patient for the operations to obviate post operative vomiting which strains the freshly attached kidney and loosens it from its anchorage.

The chief objects to be accomplished are:

Permanent fixation of the kidney in its normal position; complete detachment of the colon from the organ to obviate subsequent dragging upon it by the distended bowel; the avoidance of mutilation of the kidney and of the patient, and cure of the symptoms and conditions produced by the prolapse.

The author's technique is briefly as follows:

The kidney is reached by a vertical incision along the outer border of the erector spinæ muscle, the muscles being separated in the direction of their fibres; the fatty investment of the kidney is opened by a verticle incision near the spinal side of the wound, and the kidney is delivered through the incision upon the surface of the back. The fatty capsule is then completely detached upon both the anterior and posterior surfaces, of the back. The fatty capsule is then completely detached upon both the anterior and posterior surfaces, care being taken to detach the colon completely. The redundant fatty capsule is trimmed off on both sides. The fibrous capsule of the kidney is not detached or otherwise disturbed. The sustaining sutures, two in number are inserted only under the fibrous capsule, each having three insertions through and under this fibrous capsule, and the ends are brought out through all the structures of the back at the upper angle of the incision in the skin and are tied over a fold of gauze to avoid cutting by the suture and loosening of the loop. The suture material used is silkworm gut and the sutures are removed after three weeks. The wound is closed by two layers of cat-gut suture,—one uniting the superficial fascia, and the other the skin margins. A gauze drain is inserted about the lower pole of the kidney and brought out at the lower angle of the wound. This aids in supporting the organ taking the strain off the sustaining sutures during the first forty-eight hours after which time it is removed.

The author enumerates many reasons why nephropexy may prove a failure, the chief being as follows:

Postponement of the operation until the

* Abstract of paper read in Section on Diseases of Women at the Fifty-fourth Annual Meeting of the American Medical Association, at New Orleans, May 5–8, 1903. By Augustin H. Goelet, of New York.

kidney is seriously disabled or an incurable pyelo-nephritis has developed, or until the health of the patient is permanently shattered.

Failure to completely detach the colon from the kidney which may drag the kidney away from its anchorage or give rise to annoying pain.

Failure to immobilize the kidney until it can become permanently adherent by employing absorbable sutures or by attaching them insecurely to structures that yield to the construction when it is tied, and

Fixing the kidney too low down where it will be irritated by pressure of the corsets or clothing constricting the waist.

The author concludes with a record of 159 nephropexies by the method he describes on 126 patients, in 33 of these both kidneys being fixed at the same time, without a death and without a single failure to secure permanent fixation. The ultimate results were cure of the symptoms and conditions depending upon the prolapse in all of the cases he has been able to trace, in from two to twelve months after operation.

Sunshine and Fresh Air, vs. the Finsen Ultra Violet Rays and the Roentgen Ray in Tuberculosis of the Joints and Bones.*

1. Sunlight, fresh air and good food, together with fixation of the joint, are the most important agents in the contest with tubercular infection of the hard tissues.

2. Direct exposure to the rays of the sun is essential, and all hospitals should be provided with solaria or sun porches.

3. Patients lying in bed should have the diseased joints exposed to the direct rays of the sun, their heads and eyes being protected by green glasses or shades. The joints may be covered with blue so as to secure easiest passage of the ultra violet actinic rays, and local medications rich in iodine may be also employed as desired.

4. Tent life on the Hospital grounds, or better, in the open pine forest, can be successfully employed through both summer and winter.

5. Sanatoria should be instituted for tuberculosis of the hard tissues, as well as of the soft.

6. The concentration of the sun's rays by lenses as suggested by Butler, Finsen and others is of positive benefit in bactericidal power. As final curative agents however, the direct sun's rays are more effective.

7. The Roentgen rays in the laboratory have an inhibitory power upon the tubercle bacillus, and may prove useful in restraining the growth of these micro-organisms in living tissues.

8. The actinic rays and the X-rays are both apparently helpful in the fight with tuberculosis, but several years will be required to determine accurately their effect. They should be employed not to supercede but to antedate and to supplement operative procedures, and to assist the mechanical and general therapeutic measures employed.

* Abstract of paper read before the Surgical Section, American Medical Association, New Orleans, May 3rd, 1903. By De Forest Willard, M. D., Philadelphia, Clin. Prof. Orth. Surg., Univ. Pennsylvania, Surgeon Pres. Hospital.

Empyema.

Bythell (Medical Chronicle) says that empyema is common in children at all ages, and is decidedly more frequent in boys than in girls. The disease resembles pneumonia in being more prevalent in spring and early summer. The pleura is infected in the great majority of cases by a process of direct invasion from a pulmonary lesion; the latter is usually a catarrhal pneumonia in children. In many cases which are apparently "primary" the source of infection is probably also an undiscovered patch of bronchopneumonia.

The micro-organism which is by far the most frequently present in the empyema of children is the pneumococcus.

The clinical results of empyema depend to some extent upon the species of bacteria found within the pleura, the pneumococcic cases being on the whole the mildest. The micro-organism may, however, give rise to very serious complications, either by the direct invasion of surrounding viscera or by metastatic infection.

The bacteriological examination of the pus gives other indications as to the clinical prognosis, which appear to be of considerable value: (*a*) a small number of poorly stained micro-organisms which give feeble cultures usually denotes a good prognosis; (*b*) the reverse condition is not so frequently accompanied by severe clinical symptoms, especially when phagocytosis is well marked; (*c*) vigorous cultures are not in themselves a reliable sign of pathogenic activity.

The bronchial nodes are probably invaded by micro-organisms from the pleural cavity in every case of empyema. The organisms are sometimes also found after death in the mesenteric nodes.

With the exception of those cases in which there are tuberculous lesions of the pleura or lung, the best results may be expected from resection of a rib with free drainage of the pleural cavity.

Charlotte Medical Journal

EDWARD C. REGISTER, M. D., Editor.

No. 36 South Tryon Street, - - - -

- - - - - - - - - - - Charlotte, N. C.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

Our distinguished friend, Dr. J. C. Culbertson, editor of the Cincinnati Lancet Clinic, in a recent editorial in his Journal comments in an interesting way on a few incidents that he noticed at the banquet given to the members of the American Medical Editors' Association in New Orleans last week. Among other significant things, this distinguished gentleman said:

"The writer is tempted to make mention of an incident, perhaps excusable and perhaps not. The incident thought of was the absence of the editor of the *Association Journal* or of a representative. A self-assumed representative, in responding to a toast, took occasion, foreign to his subject, to thank the independent medical journalists for the aid and assistance rendered from time to time by them to the *Association Journal*, and asked for a continuance of good will and fraternal fellowship. This expression was received with solemn silence, and why should it not be so? There was certainly no concert of action on the part of the independent journalists on the matter, but there was evidently a common feeling of dissatisfaction with the course of that publication. Evidently, a line has been drawn and the foundations of a wall erected which has for its intent and purpose a future antagonism of the *Association Journal*. There was not much outspoken feeling expressed, but mutterings and murmurings of discontent passed around from one to another."

The sentiment refered to above is indirectly, but ingeniously and forcibly expressed. This dissatisfied feeling that he refers to among the editors and publishers of the different journals is increasing every year and it is only a question of time when a "concert of action" will prevail. This is only as it should be. It is perfectly natural and perfectly right. If the success of a great organization like the American Medical Association is dependent upon its department of medical advertising to keep it strong and to keep it prosperous, let it weaken and let the interest in it wane.

In England there is a precedent for the policy adopted by our national association and it is well enough for us in this country to study this policy and what it has led to there. I think that it is putting it mildly when I say that it has crippled medical journal enterprises in that country. I believe that it would be nearer the truth for me to say that it has run a great many of them out of business, and has kept many more from entering it. The British Medical Association, or its official organ, controls three-fifths of the medical journal advertising business in England. Things drifted to this point there many years ago, probably on account of the great strength of the British Medical Association and the evident weakness and want of business foresight on the part of the medical editors and publishers in that country. The American medical profession will not be so wanting in business judgment as to let their personal business interests sag without a formidable protest.

As a member of the American Association I don't believe that it would be amiss or improper in any sense or an injustice to any one to say that the Journal of the American Medical Association should not be the greatest advertising medium for proprietary medicines in this country, but should alone boast of its scientific superiority. As long as this policy of the journal prevails evidences of prejudice against it will be in evidence. When they make the advertising of the proprietary medicines an insignificant feature of the journal, or better still, do away with it altogether, then, and not until then, will the name of the association journal create a different murmur from that described by Dr. Culbertson, or cause the applause that it, in many ways deserves. I believe that a policy of this kind would be a help to the Journal's great editor and his proficient assistants and enable them to do better and more acceptable work.

DR. BILLING'S ADDRESS AT NEW ORLEANS.

In his address, which we publish in another department of the Journal, Dr. Frank Billings, Pres. of the American Medical Association, discussed in a masterly way the subject of medical eduction in this country. His address was a formidable indictment of private money-making medical colleges. He referred to the large number of small and badly equipped medical teaching institutions in these United States, which he says are conducted as merely money-making enterprises. He predicts that these little institutions will soon go out of business. He gives many plausible reasons why they can no longer keep pace with heavily endowed Universities. His idea is that only a few medical colleges can do effective work, or work thorough enough to meet the demands of the medical profession as it is to-day. He boldly asserts that

the educating of young medical men as a private enterprise for gain is doomed in this country. He mentions the fact that rich men are seeing the necessity of endowing medical institutions and encourging medical research. This will, he believes, number the days of badly equipped medical schools. He certainly must be conservative in his statement in which he says that it cost $500 per year to properly teach a medical student, and it is as he says, only a very small per cent. of the young men entering the medical profession who can afford to pay this amount, consequently they will soon learn to go to schools which are heavily endowed and can give them the best training at a very small cost.

These sentiments of Dr. Billings are not new to the readers of the current medical literature of the day. This laudable feeling now prevails almost everywhere and such sentiments will grow and should be encouraged. It is only a question of a few years when our great universities with their immense wealth and their facilities for giving advanced medical instruction will lead the world in higher medical education.

THE NEW CODE OF MEDICAL ETHICS.

The text of the new code of medical ethics which the committee of the House of Delegates adopted in New Orleans at its recent meeting appears in another department of this journal and is interesting reading. It was expected that this matter when brought before the House of Delegates would create quite a discussion and diversity of opinion and hardly any one expected the report to be satisfactory to all concerned. When this report was called for, by special permission, Dr. C. A. L. Reed, of Cincinnati read a substitute. It seems that the chairman of the original committee was in favor of Dr. Reed's substitute and seconded the motion for its consideration. After some debate the matter was refered to a special committee appointed by the president. This committee without much discussion adopted Dr. Reed's substitute with only a few modifications. In many ways the old code has been modified. This is as it should be. Many features of it were obsolete and a revision seemed to be a necessity. I think that the House of Delegates acted with much wisdom when it adopted Dr. Reed's substitute. Inasmuch as it seemed to satisfy the members of the original committee, it certainly clears the way for a complete reorganization of the medical profession in the United States, which is certainly one important thing to be encouraged in medical societies now. Of course local conditions make it an absolute necessity to only incorporate in a national code of ethics general principles and only a few specific rules and in a way make it a suggestive or advisory document. The new code is liberal, democratic and in harmony with progress.

THE AMERICAN MEDICAL ASSOCIATION.

The fifty-fourth annual meeting of the American Medical Association was held at New Orleans the first of last month. It was a great event in the history of this organization. Over two thousand physicians registered and every section seemed to be well attended. The sections on medicine and surgery were especially popular and the commodious quarters prepared for these two sections were constantly crowded. Often during the reading of important papers you could scarcely get standing room. Never before in the history of this organization was more interest shown in scientific work. Taking everything into consideration New Orleans was an ideal place for this meeting. The weather was fine. The character of the country and city interested many Northern physicians who had never been there before. While physicians from every part of the country were there, as might have been expected the larger part of them were Southerners.

At one time the discussion in the section of medicine was especially very interesting, when the possibility of a third disease intermediate to typhoid fever and malaria, yet absolutely independent of either, was discussed. This discussion was participated in mainly by prominent Southern physicians. Never before has the writer observed more substantial evidences of the brilliant prospects in Southern medicine than the thorough way in which these doctors discussed this subject.

The wisdom in creating the House of Delegates and taking away from the general meetings the business of the Association was certainly demonstrated in New Orleans. The House of Delegates controlled all of the business and political workings of the Association which did not in any way interfere with any of the work in the sections. It is usually the case, and this meeting was no exception, that you can observe evidences of medical political scheming among some of the members of this great body. But this seems to be a necessary evil in all bodies, democratic, and if we have to have it in our National Association, the House of Delegates is the place to confine it, and not have it interfere with the scientific work in the various sections.

MEDICAL NOSTRUMS AND THE PUBLIC.

When we consider with any possible means, even in the meager data that is in evidence, the apparent enormous bulk of stuff that is consumed by the people of the United States under the guise of medicine it is most remarkable. And when we realize that there are no definite statistics which are at all reliable, recognize that there even must be added to the sum and substance of the amount supposed to be used, the traffic assumes proportions that are astounding. It would be of definite value if an approximate estimate of the quantity, with the commercial value and the retail proceeds obtained therefrom, could be obtained by some official manner; it would be of service in the warfare that probably will be inaugurated against it in the future, or at least should, and at a very near date. The traffic is undoubtedly a blot upon our nation as one with pretensions of enlightenment. Some governments and nations that we feel able to look down upon have advanced conditions or regulations in this matter, which put them in the fore-front of intelligent regulation, of this nefarious commercial dealing of the health and the lives of human beings.

In our country every cross roads grocery store and tobacco shop can without let or hinderance, simply by his trader's license, prescribe or sell these vile mixtures or nostrums to the innocent, often ignorant customer, thus swindling him of his hard earnings and often depriving him of a chance of having his health permanently restored. Even often causing such waste of time, preventing legitimate and scientific treatment with the result that his life is lost.

At the 53rd annual meeting of the American Medical Association at Saratoga, N. Y., after papers had been read by Drs. Spratling and Jelliffe, of New York, pertinent to this subject, followed by general discussions, a motion was offered and adopted, giving the Chairman of the section on Materia-Medica, Pharmacy, and Therapeutics power to appoint a committee of three on the subject of these papers to report at the meeting of the section in 1903; making such recommendations as they think fit. The Chair appointed Drs. Baer, Robinson and Wood.

At the 54th meeting of the Medical Association this subject should receive the careful consideration of the House of Delegates and a movement be set in motion that will go to the finish. When this dishonorable and dishonest trade will be greatly limited and under National and State Legislative control.

Why should the United States or any government legalize a business that preys upon the lives and healths of its citizens?

The united medical profession through the American Medical Association should take the initiative in this work. It should be seconded by the Woman's Christian Temperance Union and the churches throughout the land. The work will be uphill and fought at every turn, but the nobleness of the object to be achieved is worthy all the efforts which will be required to bring about this reform.

FRUIT REMEDIES.

A recent investigation has shown that quite a number of functional diseases as well as organic changes are not only due to but are greatly aggravated by, gastro-intestinal disorders. Also that many of these troubles are the direct results of auto-intoxication. This seems to be very marked in persons who use large quantities of meat and who are reckless in their diet, and also in persons who use spirits for their supposed tonic and food effects. Rheumatism and gout are very often traceable to the toxic states caused by ferments in the stomach and intestines. In most of these gastro-intestinal troubles there is diminished alkilinity of the blood. For a long time the change of diet to fruit has produced remarkable effects in most of these cases. A noted author has reported a number of cases of invalid children who suffered from night-mare and excessive nervousness who were successfully treated by a fruit diet. Bread and cereals with ripe fruits constituted the entire remedies. Another author has mentioned some remarkable cases of elderly persons suffering from obscure troubles cured by the same means. In diabetics a recent author observes that fruit sugar can be taken to the amount of three ounces daily without increasing the output of sugar, whereas starchy food or sugar in the form of glucose always increases the amount of sugar eliminated. The ordinary diabetic prescriptions of meats, eggs and milk with the exclusion of all vegetables containing starch is found to be greatly supplemented by large quantities of fruits. It is found that they give variety to the diet and furnish the much needed carbonaceous elements without increasing the sugar. They also diminish the gastro intestinal decomposition and hence take work from the kidneys giving them better opportunity to store up sugar. In Bright's Disease the albumen is thrown off while some of the poisons are retained. Medically, the effort is to diminish the loss of albumen and get rid of the accumulated matters which the crippled kidneys are unable to take care of. From a fruit diet the

ptomains are diminished and more acids and water are directed towards flushing the kidneys. One author recommends to give the patient all the water he wants together with all sorts of fruits which increases the alkalinity of the blood favoring oxidation of the sugar. In a noted text-book the following is the general treatment for diabetis: Give nitrigonous foods in the form of gluten, gruel, mush, or biscuits with nut foods. If the patient is feeble, keep him in bed. If he is vigorous, have him exercise freely every day. There is evidently a great deal to be learned in the effects of fruit diet both in health and disease, and physicians should feel that the subject is worthy of a great deal of attention.

COAL TAR PREPARATIONS.

There has been a radical change of use in these preparations since their introduction twelve to fifteen years ago when they were used with a free hand by the profession. Various untoward conditions occurred and the profession saw that while the prepartions were effectual they lacked that safety which was desirable in a remedy. However, in their employment other effects from the use of these products were recognized; and now in the more conservative and thoughtful use of these preparations various therapeutic advantages are secured. All of the forms of the coal tar derivatives need to be used with special caution; only when the condition of the patient will allow for their effect should they be resorted to. However, when the condition is suitable and the use is indicated they fulfill a want almost like a charm.

As an adjuvant in neuralgia they are very serviceable; in fact, in all conditions where there is a nervous element causing distress they play a pleasing role. In Migrane, the well-known compound ascetanilid pill is most advantageous. This, however, should be crushed when it is to be administered. The same combination acts nicely when given thoughtfully in Rheumatism, especially the muscular form. Especial good has been observed by their use in "Trifacial, Intercostal Neuralgias, Lumbago and Locomotor Ataxia," says Wharton Sinkler, M. D., in Therapeutic Gazette, January, 1903. Several of these preparations of coal tar have been of much benefit in diseases of the skin and in treating ulcers and burns.—M. B. Hartzel, M. D., in Therapeutic Gazette, January, 1903. Morton. of Philadelphia, early in their use, recognized this benefit as a topical dressing in open wounds as an after dressing.

The use of acetanilid has been proven of much good effect in the outbreak and after treatment of Epilepsy and Hystero-Epilepsy. These various preparations deserve a careful study by every practitioner, that their safe use and great benefit may be well understood. We beg to take pleasure in refering to three articles in The Therapeutic Gazette for January, 1903, upon these products by Sinkler, Hartzel and Pearce, all of Philadelphia; in a symposium read before the Philadelphia County Medical Society, December 10, 1903. These articles are quite exhaustive and are filled with thoughtful, well-worked out information upon the many coal tar products.

EXERCISE AS A REMEDY.

In the large cities it is not uncommon to prescribe for patients out-door exercise, leaving it entirely to the patient to determine when and where this will be taken. Recently, Dr. Brunton has pointed out the danger from this indiscriminate prescription. He shows that golf, cricket, baseball and many other popular outdoor means for getting health are dangerous, and result in increased disease and nervousness later. Exercise beyond the point of ordinary fatigue increases the poisonous products and very often diminishes the power of elimination, impairing the weakened organism and actually increasing the weakened states which it is hoped to overcome. Exercise which calls for sudden strains and intense activity upon all the muscles of the body as in running and jumping is followed by what is called heart strain, insignificant at first, but gradually increasing, until it develops into permanent heart affection. Much of the exercise in schools and colleges are the starting points for organic diseases which appear later in life. The prize runners and jumpers and the experts at football and golf always have organic heart disease sooner or later. Over-training is an expensive process. The heart and arteries suffer most, then come the nerve-centers and the equillibrium between waste and supply. Nervous energy cannot be stored for the future. The reservoirs are exhausted and the result appears in all sorts of diseases. Physicians should be teachers in this matter. There are evidences in almost every neighborhood and large town of the faults of over-exercise in early and middle life.

Book Notices.

Diseases of the heart and Arterial System. —Designed to be a practical presentation of the subject for the use of students and practitioners of medicine. By Robert H. Babcock, A. M., M. D., Professor of Clinical Medicine and Diseases of the Chest, College of Physicians and Surgeons, Chicago; Attending Physician to Cook County Hospital. With 3 colored plates and 139 illustrations. New York and London: D. Appleton & Co., 1903.

It is indeed seldom that we receive a book which is more highly prized than the one in hand, because it is singularly meritorious, unique and valuable, because of what it is as an exponent of the work of an author who has under many disadvantages become one of the most famous diagnosticians in the United States. To make such a statement there needs to be a comprehension of the man and his work. The author, in his introduction, states that theories and speculations have been omitted or given but scanty consideration, in a belief that they tend to confuse the student. Dr. Babcock pays special attention to that exceedingly difficult subject, the diagnosis of cardiac diseases, in turn taking up questions of treatment in detail, believing that by so doing the work might be given a more practical value to the general practitioner. The phraseology and nomenclature are kept simple and free from technicalities, while in the terminology an attempt has been made to employ the terms which are in most familiar use among American and English physicians. He claims no particular originality, but refers to other works where he has received valuable suggestions, and from which much information has been derived.

Dr. Babcock is one of the marvels of the age. Having been totally blind for many years, but contending with these most adverse conditions, he has pursued the practice of his profession in a most active manner, until he has become a leading authority as diagnostician and consultant on all chest diseases. This book of itself cannot be excelled, because of its meritorious character. The title tells of what it treats—"Diseases of the Heart and Arteries." The book would be a typical text-book were it written by any other man having full use of two eyes.

Transactions of the Vermont State Medical Society for 1902.

As usual the transactions of this Society come to us in a handsomely bound volume of about three hundred pages. It contains many beautiful illustrations and papers by prominent physicians who are well known all over this country for their skill and ability. The discussions are full, practical and worth reading. The Society is 89 years old and is one of the most prosperous State Medical organizations in the country. It gives the names of the officers and members of its various county medical societies. The Society has adopted the constitution suggested by the committee on reorganization of the American Medical Association with only a few changes.

The Surgery of the Head.—By Bayard Holmes, B. S., M. D., Professor of Surgery in the University of Illinois, Professor of Clinical Surgery in the American Medical Missionary College, Chicago; Attending Surgeon the Chicago Baptist Hospital. Pages 569. D. Appleton & Company, New York. 1903.

This is a most interesting book and one which should be of great value to students and to physicians as well. Dr. Holmes is a well-known advocate of the seminar method of teaching, and advocates the reporting of clinical observations and accessory reading as an aid to study. His ideas are exemplified in this work. The subjects considered are made to have a clinical basis by the introduction of illustrative cases taken from the periodical literature. The anatomical and physiological bearings of each injury or disease are pointed out and make a good foundation for the special details of disease which follow. In other words, he explains the mechanism of each ailment, as founded in variations from the normal. One paragraph from his preface we desire to quote, since it expresses an opinion which we have long held concerning the proportionate emphasis placed upon the rare and the commonplace:

"Probably nine-tenths of all the surgical work which the general practitioner is called upon to perform is confined to one-ninth of the subjects found in an encyclopedia of surgery, and it is therefore unreasonle that the discusson of surgical rarities should overshadow that of the every-day emergencies of the avarage practitioner and confuse him by their bulk. A perusal of the proceedings of medical and surgical societies and a cursory reading of the current medical literature give a wholly distorted picture of the importance of the subjects discussed."

This is sound logic. The trouble with two much of our literature is that it appeals to a small and select class, rather than to the great majority who support it.

We judge that this is the first volume of a series to deal with emergency surgery. We must heartily recommend this book.

The Practical Medicine Series of Year-books.—Under the General Editorial Charge of Gustavus P. Head, M. D. Volume IV, Gynecology. Edited by E. C. Dudley, A. M., M. D., and W. Healey, A. B., M. D. Price $1.25. Price of series, $7.50. March, 1903. Chicago: The Year-Book Publishers.

Attention is directed by the publishers of this valuable series of year-books to the fact that they are published primarily for the general practitioner, and that the ten annual volumes cover the whole field of medical practice.

The editors in their introduction say that the current volume is a careful resume of the best practical literature of gynecology for the year ending February 1, 1903. In the selection and adaptation of articles they have had constantly before them the desire to make the work helpful to those who have occasion to treat the diseases of women. During the past year there have been few discoveries in this department of great import. Certain anomalies in anatomy and rare conditions in pathology have been recorded in the periodical literature which have not fallen within the scope of the work, and hence have been omitted. The subject of tumors, which occupied considerable space in the last year book, has in the recent literature received few important additions. Cystoscopy, on the other hand, has been the subject of numerous valuable contributions.

The first part of the current volume is taken up with a discussion of the general principles of gynecology, among which is a lengthy abstract of a couple of papers upon gynecologic examinations, than which nothing could be more important for the general practitioner, or indeed, a gynecologist who is not thoroughly grounded in the technique of examinations.

Part I deals with the infections and allied disorders, discussing inflamation of the vagina, uterus, and adnexa. The increasing importance of infections of the bladder is shown by the length of the chapter devoted to this subject. It closes with the following conclusions: (1) The term vesical hyperesthesia, or irritable bladder, is in almost every case in women erroneously applied; (2) it is rare that vesical hyperesthesia exists as a true neurosis; (3) it is commonly only a symptom, and is in the majority of cases the result of some change in the vesical mucous membrane, or an indirect result of changes in adjacent organs; (4) the underlying conditions are only revealed by a thorough examination of not only the bladder, but also the urethra and pelvic organs. The more exact data upon which these conclusions are based are derived from the increasing use of the cystoscope in the diagnosis of vesical changes.

Tumors of the uterus and deviations of the uterus, together with displacements of the other pelvic organs, form a considerable portion of the current volume.

The senior editor has exercised a wise discretion in commenting freely upon the various articles.

Transactions of the Medical Society of New Jersey, 1902,

This Society is one of the oldest in the country. It was organized one hundred and thirty-six years ago and now has over a thousand members. The proceedings and papers at this meeting fill a large volume of about three hundred pages.

A Practical Treatise of Materia Medica and Therapeutics. By Robert Bartholow, M. A., M. D., LL.D., Professor Emeritus of Materia Medica, General Terapeutics, and Hygiene in the Jefferson Medical College of Philadelphia; formerly Professor of Materia Medica and Therapeutics and of the Practice of Medicine in the Medical College of Ohio; Fellow of the College of Physicians of Philadelphia; Member of the American Philosophical Society; Honorary Fellow of the Royal Medical Society of Edinburgh; Honorary Fellow of the Societe Medico-practique de Paris, and of various national, state, and county medical societies. Author of a treatise on the practise of Medicin; of a treatise on Medical Electricity; of a Manual on Hypodermic Medication; of the Russell and Jewett prize essays, and prize essays of the American Medical Association, and of the Rhode Island Medical Society, etc. Eleventh edition, revised and enlarged. Published by D. Appleton & Company, New York and London, 1903. Price in cloth, $5.00.

Ten previous editions have well proven its practical value, and the glory of the work is augmented in this thoroughly up-to-date issue. It contains 866 pages, with an excellent index of remedies. A carefully edited clinical index carries the reader immediately to what he searches for and renders the work intensely practical for the busy practician, and it contains brief comments which tell, without looking up the references, whether the given remedies will probably suit the indication. Hydrotherapy has thirteen pages. Errors have been carefully eliminated and the mechanical excellence of the book is notable. While due regard is given to the present trend to the physiological side, he states in his preface that "empirical knowledge, supported

by careful clinical work, and improved by sound induction, should continue to be an important element in the structure of any therapeutical system."

We recommend the book, believing that it is the best of the kind ever published in the country.

The Turk and His Lost Provinces. By William Eleroy Curtis, author of "The True Thomas Jefferson," "The Yankees of the East," "Between the Andes and the Ocean," etc. Fleming H. Revell Company, Chicago, New York, Toronto, London and Edinburgh. 1903.

Von Moltke, the great German soldier, predicted that a universal war would be fought under the walls of Constantinople. He had faith that the Christian Powers of Europe, sooner or later, would compel the Turks to respect their moral, political, and financial obligations. This would have been done years ago but for jealousy of those Powers, and the thousands of innocent Macedonians who have been massacred and the hundreds of thousands who have suffered from Turkish cruelty are the victims of that jealousy. The Czar would intervene, but England, France, Austria and Germany will not permit him to do so for fear Russia will obtain a port upon the Mediterranean. At intervals the uprisings in Macedonia have indicated the approach of hostilities. They have grown more frequent and serious until, Russia and Austria have demanded a better government for Macedonia, and the Sultan has responded by ordering 250,000 Turkish troops into that province. Diplomatic negotiations and empty assurances may again avert war, but every sign indicates that Von Moltke's prophecy is soon to be fulfilled. The purpose of this publication is to give English readers a few facts about the several "buffer states" of the Balkan Peninsula which cannot be elsewhere obtained. It is the result of a journey through that peninsula as a correspondent of the Chicago Record-Herald, and although the author realizes that it is defective and incomplete, he is confident that the American public will appreciate his efforts to give them the timely information it contains.

The Prevention of Disease.—By Wilmot Evans, with an Introduction by H. Timbrell Bulstrode, M. D. In two volumes. Funck & Wagnalls Company, 30 Lafayette Place, New York. Publisher's price, $3.75 per volume.

This is in the form of a condensed encyclopedia written by specialists on a prophylaxis of the disease, of which he has made a specialty. Then begins with a history of prophylaxis as a science, including methods of prevention of disease, among the Hindoos, Israelites, Greeks, Egyptians, Syrians and other ancient races, constituting a history of medicine that is particularly valuable. Following this history of the prevention of disease, there is taken up, in order, the prevention of the diseases of children, then of each and every organ of the body, until in conclusion, the reader finds himself in possession of a vast amount of information that is of a very practical character. At this time, when the world is being visited with the plague, a history of that disease and of the methods of combating it are given at length. Cholera receives similar attention. To the sanitarian and hygienist, as well as to the general practitioner of medicine, this work of two volumes will for many years be classified as among the indispensable books of a library. Recognizing the altruism that knowledge is power, there is found a whole lot of power and latent energy waiting and ready to be given out from the pages of this estimable work.

Mary North. A Novel by Lucy Rider Meyer. Fleming H. Revell Company, Chicago, New York, Toronto, London, Edinburg.

Mrs. Meyer has for many years been extremely active in deaconess work. During her experience there have come under her notice many characters and many stories of pathos of the lonely life of the young woman who having left home influence seeks education or livelihood in large centers. The necessity for some word of warning was borne in upon Mrs. Meyer, and her story, combining the actual incidents from the experiences of many, is the result. It has strength and pathos and humor. It tells a story. It is powerfully instructive. It is the picture of a girl's life. It is a necessary book.

The International Medical Annual. A Year-Book of Treatment and Practitioners' Index. 1903. Twenty-first year. New York: E. B. Treat & Co.

The year-book has been so long before the public and has reflected with such truth the progress of the year that it has received the warmest commendations of an immense clientele. Scientific facts, the progress of the medical world, and the conclusions of its ablest writers have been condensed and presented so clearly as to be easily grasped by every one. It is only necessary to say that this volume is fully up to the high standard maintained through twenty-one years of publication.

Two Heroes of Cathay. By Luella Miner. Fleming H. Revell Company, 158 Fifth Ave., New York; 63 Washington St., Chicago; 27 Richmond St. W., Toronto; London and Edinburgh.

The barbarous treatment of the two Chinese students whose case has recently attracted so much attention, warns us that this Nation cannot hope to maintain her footing in the East if such things are going to be repeated. That they were granted an ungracious entrance after eighteen months' detention, and are now in Oberlin College, does not alter the case. They represent the cultured class of China, and we welcome them about as we would a pestilence. The Outlook well says: "Whoever is responsible for such injustice as was done them, the American people will be responsible if they allow it to be repeated." Miss Miner's story will win many friends and it is to be hoped create a sentiment that will make the repetition of such injustice impossible.

The Transactions of the Ohio State Medical Society, 1902.

The transactions of this medical society comes to us, as usual, in a very attractive volume of about three hundred and sixty pages. Many interesting papers appear in this volume, several of which are by men well known nationally in medical circles.

Literary Notices.

The May Cosmopolitan.—Nineteen stories and articles and one hundred and twelve illustrations form the contents of the May Cosmopolitan. J. Henniker Heaten, M. P., contributes an article on the British Parcel Post—particularly timely, in view of the plan, about which the entire mercantile world is showing so wide an interest, to introduce into this country the system of carrying parcels in the mail. Ella Adelia Fletcher is the author of a charmingly illustrated essay on "The Power and Beauty of Woman's Eyes." The wonderful possibilities of scientific corn-culture are explained in an instructive paper, by A. D. Shamel, of the Illinois Experiment Station, entitled "The Marvels of Corn Culture," illustrated with a series of exemplifying photographs. Sir Edwin Arnold has written for this number of The Cosmopolitan an entertaining essay on a strange subject for him to treat—the tying of knots, with many practical illustration. A contribution which will be widely read is "Platonic Friendship," by Rafford Pyke. Mr. John Brisben Walker, who has made a twenty years' study of taxation, offers "A Method of Equitable Taxation." Three interesting characters —Gustsvus Franklin Swift, Clement Acton Griscom and George Gould—are sketched as "Captains of Industry." Among other features of the magazine appear "Romances of the World's Great Mines," by Samuel E. Moffett; "Teaching: its Hardships and Rewards," by Rev. James C. Mackenzie, Ph.D.; "The Food Laboratory"—an article on how to Administer the Kitchen—by John Brisben Walker; "Society's Amateur Circus," by Helmet Stag Archer; and a Philasophical essay by H. G. Wells on "Accepted Institutions as Educational Agencies." The May Cosmopolitan is remarkably strong in fiction. Among the contributors are Henry Seton Merriman, Olivier Henry, Frank R. Robinson, Julia Valentine Bond and Tom Mason.

The dedication of the St. Louis world's fair is the occasion of a brilliant series of articles in the May Review of Reviews on the Louisiana Purchase and its results, the exposition in forecast, and the city of St. Louis. The same number has an outline of the plans formed for the municipal exposition to be held at Dresden this summer, and the noteworthy features of several other European fairs and congresses are summarized in an article on the great gatherings of the summer and autumn at home and abroad. The character sketch of the month is by Mr. W. T. Stead, his subject being the right Hon. George Wyndham, whose name has been immortalized by its connection with the Irish land bill introduced last month in the British Parliament. An illustrated article by Mr. F. N. Stacy describes the great ships for the Pacific trade being built at New London, Conn., for James J. Hill. There are several pages of illustrated notes on the spring fiction and other new books, and "The Progress of the World," "Cartoon Comments," and other editorial departments are marked by a distinctive freshness and timeliness.

Conclusions so startling as those reached by Dr. Wallace's Fortnightly articles on "Man's Place in the Universe" could not go long unchallenged, and the April number of the Fortnightly brings a prompt reply from no less an authority than the Savilian Professor of Astronomy at Oxford. Professor Turner's article is reprinted in The Living Age for May 9.

The intense interest felt in the ecclesiastical situation in England at the present time is reflected in the April magazines.

Miscellaneous.

The Medicinal Treatment of Disordered Uterine Functions.*

Of all diseases and ailments which the general practitioner comes in contact with, none, perhaps, will so frequently tax his ingenuity, cause so much anxiety and perplexity as diseases peculiar to women. This may at first glance seem a broad and careless assertion, but a little reflection on the subject will prove otherwise. It is a well known fact that some uterine and ovarian lesions and functional disorders will often produce such reflex symptoms and so remote from the actual seat of the trouble that even the most experienced and careful physician will be misled and thrown off his guard. Moreover, the lesion or functional disorder need not necessarily be extensive in order to produce profound reflex manifestations, and these, too, may frequently manifest themselves a considerable time after the local lesion has been produced. Thus, for instance, an apparently slight laceration of the cervix will cause subinvolution which, in turn, will produce congestive dysmenorrhœa. The reflex symptoms that may be present, such as constipation due to the engorged state of the pelvic viscera, severe headaches, indigestion, derangement of the liver, etc., may cause the patient to complain of anything but the real trouble.

It has been said that with the advancement of civilization, the diseases mankind is heir to, have proportionately increased. This, I believe, is especially true of women, taking in consideration their anatomy, function, and mode of dress.

Ailments arising from derangement of menstrual function, whether due to local pathological conditions or to other causes, certainly constitute a large part of cases the average physican is called upon to treat. Taking this into consideration, it becomes a matter of great importance, both to the physician and to the patient, that the therapeutic means are available with which the various disorders peculiar to the female generative organs may be successfully treated.

There are cases where nothing except surgical interference will bring about a cure or even an amelioration of the existing pathological condition. If a given case presents a tumor this tumor must be removed. If pyosalpingitis, the removal of the tube is the only way to produce a cure. If we have to deal with a uterine polypus, its surgical removal is the only course to pursue. If we have a prolapsed ovary with adhesions, the ovary must be removed. Cystic degeneration of the ovaries demands their removal. So in cases of obstructive dysmenorrhœa, whether due to an abnormal contraction of the cervical canal, or to its abnormal length, or to a flexion of the cervix, nothing short of surgical means will be of any avail.

But there are many cases to which the surgeon can lay no claim and which by proper medication can be successfully treated. This is precisely the class of cases which constitutes the greater number, and they are the cases I have in view when I say that it becomes important to have reliable therapeutic means for their treatment.

Of all remedies at our command in the treatment of such conditions, none, perhaps, will yield such happy results, will afford such prompt relief, and produce as speedy a cure as Ergoapiol (Smith). I have employed it in a number of cases, some of which will be mentioned, and found it to be a remedy confidently to be relied upon in conditions where it is indicated.

I first noticed a mention of it in the advertising pages of the Journal American Medical Association. Knowing the value of Glyco-heroin, which is prepared by the same firm (Martin H. Smith Co.) in various respiratory troubles, I thought, perhaps, their other product—Ergoapiol—may prove equally as efficacious in the treatment of female ailments that are amenable to therapeutic means. I resolved to give it a trial. It is needless to add that the results obtained were highly gratifying, or this paper would not be written.

Ergoapiol (Smith) consists of ergotin, apiol, oil of savine, and aloin in proper proportion and freed from deleterious substances. Let us see what these ingredients are—their physiological action and therapeutic application:

Ergotin is excito-motor and hemostatic, stimulates circulation, intestinal and uterine muscular fibres. Is employed in menorrhagia, endometritis accompanied by leucorrhœa, congestive dysmenorrhœa, subinvolution, amenorrhœa—especially when due to plethora, and promotes absorption of inflammatory products of the uterus.

Apiol in small doses is a circulatory stimulant, carminative, diuretic, and diaphoretic. In large doses—emmenagogue. Is employed in amenorrhœa—especially if due to anæmia, congestive and neuralgic dysmenorrhœa, and fetid menstruation.

Oil of Savine increases menstrual activity and produces uterine contractions, but will not produce abortifacient effect unless given in enormous doses. It is an emmenagogue and can be given with free-

* By B. Courshon, M. D., Savannah, Ga.

dom from risk of doing harm. Is employed in dysmenorrhœa when not due to mechanical causes and in menorrhagia.

Aloin is a hepatic stimulant, mild stomach tonic, acts on the lower bowel. Is useful in amenorrhœa and constipation, aids the portal circulation, and relieves pelvic engorgement.

Oil of Savine, though a powerful gastro-intestinal irritant, becomes an excellant addition to the other ingredients going into the composition of Ergoapiol (Smith) through the use of correctives and the tonic action of aloin.

Having said this much about the physiological action and therapeutic application of the several component parts of Ergoapiol, statements based on well known facts, the sphere of usefulness of Ergoapiol (Smith) at once becomes obvious. A thorough trial in suitable conditions, I am convinced, will inspire confidence in its merits, and clinical results obtained by its use in a number of cases tended to produce in me a feeling of reliability in its therapeutic value, thus being fully justified in recommending it to the profession.

It is not here necessary to go over the etiology and symptoms of the various uterine diseases. They are too well known to every practitioner to need recapitulation, but will simply endeavor to indicate where the use of Ergoapiol may be useful.

Amenorrhœa, when caused by exposure to cold, overwork, impaired nutrition and anæmia, the administration of Ergoapiol (Smith) is extremely beneficial, especially if given in connection with a general tonic.

Congestive dysmenorrhœa, Ergoapiol, together with glycerine tampons and an occasional dose of epsom salts, will relieve pain and produce a cure in considerably less time than when Ergoapiol is not used. The glycerine tampon will deplete the pelvic viscera, besides acting as a support to the womb.

Chronic metritis, if not of too long duration, cotton tampon thoroughly soaked in glycerine or glycerine and ichtyol introduced at night and removed in the morning. Irrigation of hot water at 105 deg.. or 110 deg. F. in the morning, using from one to two gallons of water at a time. An occasional painting of the cervix with tincture of iodine, say once every week or ten days, will be found desirable. Internally, Ergoapiol one capsule every 3 or 4 times a day, and quinine, strychnine and arsenic in small doses, or elix. of iron, quinine and strychnine.

Endometritis, application of carbolized glycerine to the lining membrane of the uterine cavity by means of a thin flexible probe wrapped with a thin layer of cotton. Tincture of iodine may be used in place of the carbolized glycerine. Two or three such applications between menstrual periods but not too near the time of expected menses. Glycerine tampon from time to time will be useful. Internally, Ergoapiol, 2 or 3 times a day. Several weeks, and in some cases, even months may be necessary to bring about a cure.

Menorrhagia, seldom, if ever, exists independently. Uusually it is associated with congestive dysmenorrhœa or with metrorrhagia, therefore, whatever will cure the dysmenorrhœa or metrorrhagia, will also cure the menorrhagia.

Subinvolution, whether caused by lacerated cervix, or lacerated perineum, or by insufficient length of time spent in bed after labor, or by anything that interferes with the pelvic blood supply after labor, is decidedly benefited by the administration of Ergoapiol if combined with the usual treatment for this condition.

Before prescribing Ergoapiol it is important to ascertain that no pregnancy exists in a given case, as in that event its administration is decidedly contra-indicated.

Case I. Mrs. H. B., white, mother of 3 children, youngest 5 years old. Hard working woman, anæmic and weak, often constipated. Pain in lumbar region and sides of lower abdomen. Menstruation regular till 3 months ago, since when had only one slight manifestation. Prescribed Ergoapiol, one capsule 3 times a day beginning 10 days before expected menses and continuing throughout period. Also a general tonic to be taken regularly. Treatment continued for two months, when regular menstruation was re-established.

Case II. E. W., white girl 17 years old. Began menstruating when 12 years old. Has been regular up to 3 or 4 months ago. Since then, though "unwell" every month, the discharge is stringy and clotty, severe headache, usually in the morning. Pain in back and hips the day before menses appear, appetite poor, bowels somewhat constipated. Put her on Ergoapiol, one capsule 4 times a day to be taken regularly. Came to me 3 weeks later while menses were on. Has experienced slight pain the day before she became "unwell," flow more regular in character, had no headache for the last week, appetite improved. Advised same treatment to be continued. Saw her a month later entirely well.

Case III. A. C., colored, about 32 years old. Had one miscarriage a year ago. Complained of great tenderness over pelvic region and sides, bearing down pain, constipated, menstruation irregular, scanty and of foul odor. Examination revealed con-

gested womb, sagged down. This condition was of several months duration. Prescribed glycerine tampons every night to be removed in the morning, vaginal hot water douche every day; epsom salts every morning. At the end of two weeks there was some improvement of the general condition. Put her then on Ergoapiol in addition to previous treatment, one capsule 3 times a day. Saw her again 16 days later. Married, improvement all around. Lost sight of the case, but 4 months later met her accidentally. On inquiry as to her health, she told me that she had continued treatment for a month after I saw her last, with the exception of the Ergoapiol the last week. Made a good recovery.

Case IV. M. O'C., white, clerk in a store, age 22, single. Menstruation scanty, no odor, passes clots occasionally, is irregular for the last 8 months, menses last from 1 to 3 days, appetite poor since trouble began. Had taken cold while sea-bathing. Pain in back and hips. Thinks this due to being on her feet all day. Prescribed Ergoapiol, one capsule twice a day, commencing two weeks before expected period, then increase to 4 a day. Got well in a short time.

Case V. L. B., mulatto, age 30, has one child 10 years old, miscarried 4 times in succession. Has been sick for the last 3 years or longer. Has been treated for various troubles—malaria, indigestion, neuralgia, rheumatism—with little, if any, benefit. When first called found her in bed which she had not left for the last ten days. Complained of pain in the epigastric and pelvic regions, feeling of chilliness and as of a lump in the throat. Is very weak, has no appetite, vomits occasionally, pain on urination, though not always, is constipated, frequent headachs, menstruation irregular as to time and quantity. On examination found a laceration of the cervix, though not extensive. Womb congested and low, tender to touch. Have advised glycerine tampons every night and vaginal douche in the morning, as in Case III, epsom salts morning and night. Elix Iron, Quinine and Strychnine, light food and beef tea. At the end of two weeks the improvement not being as expected, have added Ergoapiol, one capsule 4 times a day. She then began to improve more rapidly. At the end of a month Ergoapiol was reduced to two capsules a day, and at the end of 4 months of treatment she was apparently well, and an operation for repair of laceration of the cervix was advised but stoutly refused. Was "afraid of being put to sleep," as she expressed it.

Case VI. Mrs. L. F., white, age 36, married but has never conceived. Similar to Case II. Same treatment with perfect recovery.

Case VII. Miss R. L. C., white, age 15. Mother said girl menstruated for the first time five months ago, a very slight manifestation appeared two months later, and since then no visible sign of menstruation whatever, though she felt pain in the sides of pelvis at each time when menstruation should have occurred. Prescribed Ergoapiol, one capsule twice a day, three or four days before expected period, then one capsule 3 times a day till cessation of flow and repeat the same the following month. Saw her mother two months later and she told me that the girl menstruated regularly the last time.

Case VIII. Miss N. A., white, age 25, single. Began menstruating when 14. Was irregular the first year, but pretty regular since then. Three months ago was to a picnic, drank much cold lemonade. The next day commenced to cough which persisted for two weeks. Had no sign of menstruation since taking cold. Prescribed Ergoapiol, one capsule 3 times a day and a cathartic occasionally, she having complained of being constipated at times. Saw her 3 weeks later. Has menstruated the previous week, but unsatisfactorily. She is still under treatment, this being the fifth week.

It will be noted that in Cases II, VI, and VII nothing but Ergoapiol was given, thus unmistakably proving the efficacy of the remedy.

Principles of Medical Ethics of the American Medical Association.

(Full text of the revised)

The American Medical Association promulgates as a suggestive and advisory document the following:

Chapter I.—The Duties of Physicians to their patients.

"Section 1. Physicians should not only be ever ready to obey the calls of the sick and the injured, but should be mindful of the high character of their mission and of the responsibilities they must incur in the discharge of momentous duties. In their ministrations they should never forget that the comfort, the health, and the lives of those entrusted to their care depend on skill, attention, and fidelity. In deportment they should unite tenderness, cheerfulness, and firmness, and thus inspire all sufferers with gratitude, respect, and confidence. These observances are the more sacred because, generally, the only tribunal to adjudge penalties for unkindness, carelessness, or neglect is their own conscience.

"Sec. 2. Every patient committed to the charge of a physician should be treated

with attention and humanity, and reasonable indulgence should be granted to the caprices of the sick. Secrecy and delicacy should be strictly observed; and the familiar and confidential intercourse to which physicians are admitted, in their professional visits, should be guarded with the most scrupulous fidelity and honor.

"Sec. 3. The obligation of secrecy extends beyond the period of professional services; none of the privacies of individual or domestic life, no infirmity of disposition or flaw of character observed during medical attendance should ever be divulged by physicians. The force of the obligation of secrecy is so great that physicians have been protected in its observance by courts of justice.

"Sec. 4. Frequent visits to the sick are often requisite, since they enable the physician to arrive at a more perfect knowledge of the disease, and to meet promptly every change which may occur. Unnecessary visits are to be avoided, as they give undue anxiety to the patient; but to secure the patient against irritating suspense and disappointment the regular and periodical visits of the physician should be made as nearly as possible at the hour when they may be reasonably expected by the patient.

"Sec. 5. Ordinarily, the physician should not be forward to make gloomy prognostications, but should not fail, on proper occasions, to give timely notice of dangerous manifestations to the friends of the patient; and even to the patient, if absolutely necessary. This notice, however, is at times so peculiarly alarming when given by the physician, that its deliverance may often be preferably assigned to another person of good judgment.

"Sec. 6. The physician should be a minister of hope and comfort to the sick, since life may be lengthened or shortened not only by the acts but by the words or manner of the physician, whose solemn duty is to avoid all utterances and actions having a tendency to discourage and depress the patient.

"Sec. 7. The medical attendant ought not to abandon a patient because deemed incurable; for, continued attention may be highly useful to the sufferer, and comforting to the relatives, even in the last period of the fatal malady, by alleviating pain and by soothing mental anguish.

"Sec. 8. The opportunity which a physician has of promoting and strengthening the good resolutions of patients suffering under the consequences of evil conduct ought never to be neglected. Good counsels, or even remonstrances, will give satisfaction, not offense, if they be tactfully proffered and evince a genuine love of virtue, accompanied by a sincere interest in the welfare of the person to whom they are addressed."

Chapter II.—The Duties of Physicians to Each Other and to the Profession at large.

"Article 1. Duties for the support of professional character.

"Section 1. Every one on entering the profession and thereby becoming entitled to full professional fellowship, incurs an obligation to uphold its dignity and honor, to exalt its standing and to extend the bounds of its usefulness. It is consistent with the principles of medical science and it is incompatible with honorable standing in the profession for physicians to designate their practice as based upon an exclusive dogma or a sectarian system of medicine.

"Sec. 2. The physician should observe strictly such laws as are instituted for the government of the members of the profession; should honor the fraternity as a body; should endeavor to promote the science and art of medicine and should entertain a due respect for those seniors who, by their labors, have contributed to its advancement.

"Sec, 3. It is the duty of every physician to identify himself with the organized community in which he resides. Where local or county medical societies do not exist, physicians, recognized as such by law and known to each other to possess good moral and professional character, should assemble in convention and affect an organization, and thereafter any physician recognized as such by law, residing within the county and possessing a good personal and professional character, whatever may be his individual views on any question connected with the science of medicine, ought, on application, to be considered eligible to membership.

"All county medical societies thus organized ought to place themselves in affiliation with their respective State association, and the State association, in turn, with the American Medical Association.

"Sec. 4. Physicians should be active in their support of their respective county societies, which constitute the chief element of strength in the organization of the profession. The county societies should be utilized for the cultivation of fellowship, for the exchange of professional experiences, for advancement of medical knowledge, by means of papers, essays and addresses, and by bringing within their midst, when practicable, laboratory demonstrations of the latest developments of scientific methods. They should enact and enforce resolutions and ordinances touching all ethical ques-

FIRST OF ALL

insist on rest and freedom
from care; then always prescribe

GRAY'S Glycerine TONIC Comp.

This, authorities state, will,
if persistently followed, overcome
any case of general debility, nervous
exhaustion or neurasthenia.

THE PURDUE FREDERICK CO.,
No. 15 Murray Street, New York.

PRUNIER'S

HYPERPHOSPHINE

REGISTERED

(C_3 H_7 $CaPhO_6$, $2H_2$ O)

Pure Phosphoglycerate of Lime

Prepared according to the original process of MM. Portes and Prunier.

INDICATIONS.—In all cases of weakness by Anæmia, Neurasthenia, Headache, Neuralgia, Nervous Cough, General Debility.

HYPERPHOSPHINE *is non-toxic.*

HYPERPHOSPHINE *is supplied in three forms:*
Granulated, Syrup, *and* ***Wafer-Cachets***

When prescribing, specify which of the above is wanted.

E. FOUGERA & CO., Sole Agents, New York

tions of local importance, and each county society should discipline its own members, always of course, subject to appeal to its respective State association. County societies should, furthermore, secure concert of action and should cooperate with their respective State associations on all matters of pending legislation touching the interests of the profession and of the public and common interests of both.

"Sec. 5. There is no profession from the members of which greater purity of character and a higher standard of moral excellence are required than the medical; and to attain such eminence is a duty every physician owes alike to the profession and to patients. It is due to the patients, as without it their respect and confidence can not be commanded; and to the profession because no scientific attainments can compensate for the want of correct moral principles.

"Sec. 6. It is incumbent on physicians to be temperate in all things, for the practice of medicine requires the unremitting exercise of a clear and vigorous understanding; and in emergencies—for which no physician should be unprepaired—a steady hand, an acute eye and an unclouded mind are essential to the welfare, and even to the life, of a human being.

"Sec. 7. It is incompatible with honorable standing in the profession to resort to public advertisements or private cards inviting the attention of persons affected with particular diseases; to promise radical cures; to publish cases or operations in the daily prints, or to suffer such publications to be made; to invite laymen (other than relatives who may desire to be at hand) to be present at operations; to boast of cures and remedies; to adduce certificates of skill and success; or to employ any of the other methods of charlatans.

"Sec. 8. It is equally derogatory to professional character for physicians to hold patents for any surgical instruments or medicines; or to dispense, or promote the use of secret medicines, for if such nostrums are of real efficacy, any concealment regarding them is inconsistent with beneficence and professional liberality, and if mystery alone give them public notoriety, such craft implies either disgraceful ignorance or fraudulent avarice."

Article II.—Professional Services of Physicians to each other.

Section 1. Physicians should not, as a general rule, undertake the treatment of themselves, nor of members of their family for obvious reasons. In such circumstances they are peculiarly dependent on each other; therefore, kind offices and professional aid should always be cheerfully and gratuitously afforded. These visits ought not, however, to be obtrusively made, as they may give rise to embarrassment or interfere with that free choice on which such confidence depends.

"Sec. 2. All practising physicians and their immediate family dependents are entitled to the gratuitous services of any one or more of the physicians residing near them.

"Sec. 3. When a physician is summoned from a distance to the bedside of a colleague in easy financial circumstances, a compensation, proportionate to traveling expenses and to the pecuniary loss entailed by absence from the accustomed field of professional labor, should be made by the patient or relatives.

"Sec. 4. When more than one physician is attending another, one of the number should take charge of the case, otherwise the concert of thought and action so essential to wise treatment can not be assured.

"Sec. 5. The affairs of life, the pursuit of health and the various accidents and contingencies to which a physician is peculiarly exposed sometimes require the temporary withdrawal of this physician from daily professional labor and the appointment of a colleague to act for a specified time. The colleague's compliance is an act of courtesy which should always be performed with the utmost consideration for the interest and character of the family physician."

Article III.—The Duties of Physicians in Regard to Consultations.

"Section 1. The broadest dictates of humanity should be obeyed by physicians whenever and wherever their services are needed to meet the emergencies of disease or accident.

"Sec. 2. Consultations should be promoted in difficult cases, as they contribute to confidence and more enlarged views of practice.

"Sec. 3. The utmost punctuality should be observed in the visits of physicians when they are to hold consultations, and this is generally practicable, for society has been so considerate as to allow the plea of a professional engagement to take precedence over all others.

"Sec. 4. As professional engagements may sometimes cause delay in attendance, the physician who first arrives should wait for a reasonable time, after which the consultation should be considered as postponed to a new appointment.

"Sec. 5. In consultation no insincerity, rivalry, or envy should be indulged; candor, probity, and all due respect should be observed toward the physician in charge of the case.

Summer Nutrition

It is a difficult problem to maintain the nutrition of patients with pulmonary tuberculosis during the Summer months. Food is not assimilated, hence there is waste of flesh and progressive loss of vitality.

Angier's Petroleum Emulsion

With Hypophosphites

enables the patient to eat. It compels the digestion and assimilation of sufficient food to conserve the tissues and antagonize emaciation. Aside from this, it has a well-defined, specific influence upon those troublesome symptoms — cough, night sweats, pulmonary distress, diarrhœa, etc. It is a sedative and nutritive tonic of proven value.

Samples sent only upon request.

ANGIER CHEMICAL COMPANY ALLSTON DISTRICT BOSTON, MASS.

"Sec. 6. No statement or discussion of the case should take place before the patient or friends, except in the presence of all the physicians attending, or by their common consent; and no opinions or prognostications should be delivered which are not the result of previous deliberation and concurrence.

"Sec. 7. No decision should restrain the attending physician from making such subsequent variations in the mode of treatment as any unexpected change in the character of the case may demand. But at the next consultation reasons for the variations should be stated. The same privilege, with its obligation, belongs to the consultant when sent for in an emergency during the absence of the family physician.

"Sec. 8. The attending physician, at any time, may prescribe for the patient; not so the consultant, when alone, except in a case of emergency or when called from a considerable distance. In the first instance the consultant should do what is needed, and in the second should do no more than make an examination of the patient and leave a written opinion, under seal, to be delivered to the attending physician.

"Sec. 9. All discussions in consultation should be held as confidential. Neither by words nor by manner should any of the participants in a consultation assert or intimate that any part of the treatment pursued did not receive his assent.

"Sec. 10. It may happen that two physicians can not agree in their views of the nature of a case and of the treatment to be pursued. In the event of such disagreement, a third physician should, if practicable, be called in. None but the rarest and most exceptional circumstances would justify the consultant in taking charge of the case. He should not do so merely upon the solicitation of the patient or friends.

Sec. 11. A physician who is called in consultation should observe the most honorable and scrupulous regard for the character and standing of the attending physician, whose conduct of the case should be justified, as far as can be, constantly with a conscientious regard for truth, and no hint or insinuation should be thrown out which could impair the confidence reposed in the attending physician."

Article IV.—Duties of Physicians in Cases of Interference.

"Section 1. Medicine being a liberal profession, those admitted to its ranks should found their expectations of practice especially on the character and the extent of their medical education.

"Sec. 2. The physician in his intercourse with a patient under the care of another physician, should observe the strictest caution and reserve; should give no disingenuous hints relative to the nature and treatment of the patient's disorder, nor should the course of conduct of the physician directly or indirectly tend to diminish the trust reposed in the attending physician.

"Sec. 3. The same circumspection should be observed when, from motives of business or friendship, a physician is prompted to visit a person who is under the direction of another physician. Indeed, such visits should be avoided, except under peculiar circumstances, and when they are made, no inquiries should be instituted relative to the nature of the disease, or the remedies employed, but the topics of conversation should be as foreign to the case as circumstances will admit.

"Sec. 4. A physician ought not to take charge of, or prescribe for, a patient who has recently been under the care of another physician in the same illness, except in case of a sudden emergency, or in consultation with the physician previously in attendance, or when that physician has relinquished the case or has been dismissed in due form.

"Sec. 5. The physician acting in conformity with the preceding section should not make damaging insinuations regarding the practice previously adopted, and, indeed, should justify it if consistent with truth and probity; for it often happens that patients become dissatisfied when they are not immediately relieved, and as many diseases are naturally protracted, the seeming want of success, in the first stage of treatment, affords no evidence of a lack of professional knowledge or skill.

"Sec. 6. When a physician is called to an urgent case, because the family attendant is not at hand, unless assistance in consultation is desired, the former should resign the care of the patient immediately on the arrival of the family physician.

"Sec. 7. It often happens, in cases of sudden illness and of accidents and injuries, owing to the alarm and anxiety of friends, that several physicians are simultaneously summoned. Under these circumstances, courtesy should assign the patient to the first who arrives and who, if necessary, may invoke the aid of some of those present. In such a case, however, the acting physician should request the family physician to be called, and should withdraw unless requested to continue in attendance.

"Sec. 8. Whenever a physician is called to the patient of another physician during the enforced absence of that physician the case should be relinquished on the return of the latter.

"Section 9. A physician, while visiting a sick person in the country, may be asked to see another physician's patient because

SUMMER COMPLAINT

Listerine is extensively employed in the treatment of various forms of DIARRHŒA occurring in children and adults. It is administered in doses of TEN DROPS to a TEASPOONFUL, as an antidote and corrective to the fermentative and putrefactive changes taking place in the contents of the alimentary canal.

In combating serious illness, it is doubly important to be assured that the patient is supplied with genuine **Listerine**, as the substitutes sometimes offered by the trade are generally of undetermined antiseptic strength and too often worthless for the purpose for which they are required.

A PAMPHLET ENTITLED:

"Summer Complaints of Infants and Children,"

MAILED UPON REQUEST.

LAMBERT PHARMACAL COMPANY, Saint Louis, U. S. A.

of a sudden aggravation of the disease. On such an occasion the immediate needs of the patient should be attended to and the case relinquished on the arrival of the attending physician.

Sec. 10. When a physician who has been engaged to attend an obstetric case is absent, and another is sent for, delivery being accomplished during the vicarious attendance, the acting physician is entitled to the professional fee, butmust resign the patient on the arrival of the physician first engaged."

Article V.–Difference Between Physicians

"Section 1. Diversity of opinion and opposition of interest may, in the medical as in other professions, sometimes occasion controversy and even contention. Whenever such unfortunate cases occur and can not be immediately adjusted, they should be referred to the arbitration of a sufficient number of impartial physicians.

"Sec. 2. A peculiar reserve must be maintained by physicians toward the public in regard to some professional questions, and as there exist many points in medical ethics and etiquette through which the feelings of physicians may be painfully assailed in their intercourse, and which cannot be understood or appreciated by general society, neither the subject matter or their differences nor the adjudication of the arbitrators should be made public."

Article VI.—Compensation.

"Section 1. By the members of no professions are eleemosynary services more liberally dispensed than by the medical, but justice requires that some limits should be placed to their performance.

"Poverty, mutual professional obligations and certain of the public duties named in sections 1 and 2 of chapter III should always be recognized as presenting valid claims for gratuitous services; but neither institutions endowed by the public nor by the rich, nor by societies for mutual benefit, for life insurance, or for analogous purposes, nor any profession or occupation, can be admitted to possess such privilege.

"Sec. 2. It cannot be justly expected of physicians to furnish certificates of inability to serve on juries, or to perform militia duty; or to testify to the state of health of persons wishing to insure their lives, obtain pensions, or the like, without due compensation. But to persons in indigent circumstances such services should always be cheerfully and freely accorded.

"Sec. 3. Some general rules should be adopted by the physicians in every town or district relative to the minimum pecuniary acknowledgment from their patients; and it should be deemed a point of honor to adhere to these rules with as much uniformity as varying circumstances will admit.

"Sec. 4. It is the duty of physicians to recognize and by legitimate patronage to promote the profession of pharmacy, upon the skill and proficiency of which depends the reliability and elegance of remedies, but any pharmacist who although educated in his own profession is not a qualified physician, and who assumes to prescribe for the sick, ought not to receive such countenance and support. Any druggist or pharmacist who dispenses deteriorated or sophisticated drugs, or who substitutes one remedy for another designated in a prescription, ought thereby to forfeit the recognition and influence of physicians.

Chapter III.–The Duties of the Profession to the Public.

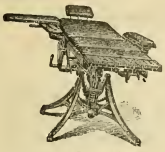
"Section 1. As good citizens it is the duty of physicians to be very vigilant for the welfare of the community, and to bear their part in sustaining its laws, institutions, and burdens; especially should they be ready to co-operate with the proper authorities in the administration and the observance of sanitary laws and regulations, and they should also be ever ready to give counsel to the public in relation to subjects especially appertaining to their profession, as on questions of sanitary police, public hygiene and legal medicine.

"Sec. 2. It is the province of physicians to enlighten the public in regard to quarantine regulations; to the location, arrangements and dietaries of hospitals, asylums, schools, prisons and similar institutions; in regard to measures for the prevention of epidemic and contagious diseases; and when pestilence prevails, it is their duty to face the danger and to continue their labors for the alleviation of the suffering people, even at the risk of their own lives.

"Sec. 3. Physicians, when called on by legally constituted authoritits, should always be ready to enlighten inquests and courts of justice on subjects strictly medical, such as involve questions relating to sanitary, legitimacy, murder by poison or other violent means, and various other subjects embraced in the science of medical jurisprudence. It is but just, however, for them to expect due compensation for their services.

"Sec. 4. It is the duty of physicians, who are frequent witnesses of the great wrongs committed by charlatans, and of the injury to health and even destruction of life caused by the use of their treatment, to enlighten the public on these subjects, and to make known the injuries sustained by the unwary from the devices and pretensions of artful impostors.

"Sec. 5. Physicians ought to use all the influence which they possess to discourage pharmacists from vending the secret or other medicines of charlatans, or from being in any way engaged in their manufacture."

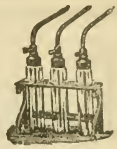


Surgical Chairs.

FEICK BROS. COMPANY.

HEADQUARTERS FOR

SURGICAL INSTRUMENTS and PHYSICIANS' SUPPLIES.



Davidson Atomizers.

Quality of first importance always, but prices likewise low. A few specialties.

Artificial Limbs, Nose and Throat Instruments,
Electric Batteries, Orthopædic Apparatus,
Invalid Supplies.

Elastic Hosiery.

Trusses.

Artificial Eyes.

Braces.

414 WOOD STREET, ... PITTSBURG, PA.

LAC-BISMO

A SCIENTIFIC COMBINATION OF MEDICINAL BISMUTH SALTS

INTERNALLY

A sedative, tonic and mild astringent; useful in stomach and intestinal disorders, Subacute Gastritis, Gastralgia, Pyrosis and kindred diseases.

LAC-BISMO has proved of great value in irritation of the intestinal and urethral mucous membrane — Diarrhœa, Intestinal Dyspepsia, Dysentery, etc.

A trial in combination with Tinct, Catechu, Tinct, Kino, Tinct, Rhubarb, etc., for the above-mentioned disorders will give most gratifying results.

For CHOLERA INFANTUM, **LAC-BISMO** undiluted is a safe, reliable and efficient remedy.

EXTERNALLY

LAC-BISMO is considered a specific for ulcerated surfaces, chronic inflammation of mucous membranes, suppurating burns, etc.

Soothing in effect; prompt and certain in action.

Why better from a Therapeutic standpoint than any or all Bismuth Salts and their Compounds?

Bismuth Subnitrate, Bismuth Subcarbonate and Hydrated Oxide of Bismuth are presented in powder form only for dispensing purposes. As a rule, they are prescribed in conjunction with other medicaments, or alone with aromatic water as the vehicle.

Bismuth and its salts are insoluble, except in strong acids. This fact precludes the possibility of administering them in solution. As administered they form an unsatisfactory and unsightly mixture from an æsthetic standpoint. From a therapeutic standpoint the objections are more serious.

You have noticed, especially where a R has been allowed so stand, that a solid precipitate is formed, which is very difficult to disintegrate. This fact renders the dose of the medicament uncertain.

LAC-BISMO is always dispensed as a uniform mixture, This obviates the objections and insures the proper dosage. Each fluid drachm represents or contains 5 grains of Medicinal Bismuth Salts.

We solicit your correspondence

Samples, price list, pamphlets, and other data cheerfully furnished on application

E. J. HART & CO., Ltd., MANUFACTURING CHEMISTS : : : :

535-537 Tchoupitoulas Street, NEW ORLEANS, LA.

Emaciation, Inanition

According to Dr. Karl von Ruck, cod-liver oil extractives—wines, elixirs, and cordials of cod-liver oil—are disproved and practically discarded products; while Hydroleine, a pancreatized, predigested cod-liver oil, is ready for immediate absorption and assimilation.

Hydroleine will make a patient gain weight steadily

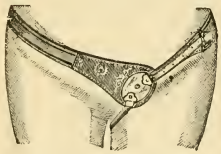
will improve the general health, check a virulent cough and permit refreshing sleep at night. It is as palatable as milk and the most delicate stomach does not refuse it.

Sold by druggists generally.

THE CHARLES N. CRITTENTON CO., 115-117 Fulton St., New York.
Samples free to physicians. Sole Agents for the United States.

Flavell's Elastic Trusses,

Can be Worn Day and Night.



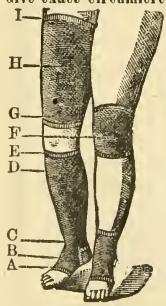
SINGLE TRUSS	Adults
A. Plain	$1.50
B. Fine	2.00
C. Silk	2.50
DOUBLE TRUSS	**Adults**
A. Plain	$2.50
B. Fine	3.00
C. Silk	4.00

PNEUMATIC PADS

Give circumference of abdomen on line of Rupture. State if for Right or left.

ELASTIC STOCKINGS.

Give exact Circumference and Length in all Cases.



NET PRICE TO PHYSICIANS.

	Stout Silk each	Fine Silk each	Thread each
A to E	$2.50	$2.00	$1.50
A to G	4.25	3.50	2.50
A to I	6.00	5.00	4.50
C to E	1.50	1.25	1.00
E to G	1.50	1.25	1.00
A to C	1.50	1.25	1.00

Goods sent by Mail upon receipt of price.

Safe delivery guaranteed.

Send your Orders Direct to

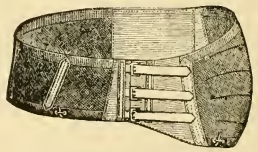
G. W. FLAVELL & BRO.,

1005 Spring Garden Street, Philadelphia, Pa.

We Solicit the Physician's Patronage Direct.

ABDOMINAL SUPPORTER.

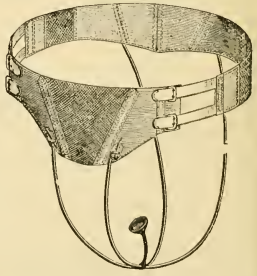
Give exact circumference of abdomen at K. L. M.



Silk Elastic.....$3.25
Thread Elastic..... 2.50

Flavell's Uterine Supporter.

Give measure 2 inches below Naval. State if for Prolapsus, Retroversion, or Anteversion.



NET PRICE TO PHYSICIANS

$2.50

INDEX TO VOLUME 22.

Original Communications.

Adenoid Hypertrophy by Clarence Porter Jones, M. D., Newport News, Va.. 228

A Few Cases of Loss of Cornea from Neglected Dacryocystitis, by D C. Bryant, M. D., Omaha, Neb..... 302

Brief Notes on the Treatment of Ulcerative Tonsillitis, by G. A. Davis, M. D., Summit Point, W. Va..... 304

Carcinoma Uteri, by H. C. Crowell, M. D., Kansas City, Mo..... 85

Croupous Pneumonia, by Dr. Marvin P. Skeen, of Wapanucka, I. T..... 161

Chronic Desquamative Nephritis, by J. G. Johnston, B.S., M. D., Chester. S. C. 380

Continuous Irrigation vs. Periodic Irrigation in Puerperal Sepsis, by A. B. Knowlton, M. D., Columbia, S. C..... 392

Diphtheria, by O. C. Kessler, M. D., Ravenwood, Missouri..... 231

Etiology and Treatment of the Uric Acid Diathesis, by W. R. Inge Dalton, M. D., New York..... 89

Food in Tubercular Cases, by Dr. Chas. S. Jordan, Asheville, N. C..... 312

Gonorrhœa in the Male, by F. R. Millard, M. D., San Diego, Cal..... 9

Granulated Lids, by F. M. Duckworth, Claremore, I. T..... 165

Hemorrhoids—With Report of Case, by W. B. Pigg, M. D., South Mc-Alester, I. T..... 223

Hyperplasia and Hypertrophy of the Uterus, by Charles G. Geiger, M. D., St. Joseph, Mo..... 235

Hysterectomy vs. Simple Removal of the Lateral Structures, when Operating for Conditions of Universal Pyo-Salpinx, with Especial Reference to the Method of Bi-Section of the Uterus, by Le Grand Guerry, M. D., Columbia, S. C..... 378

Hypertrophy of the Uterus with Report of Case—Operation—Death 22 Hours, by L. P. Horn, M. D., St. George's, S. C..... 382

Interesting Cases in Kidney Surgery with Remarks, by R. L. Payne, M. D., Norfolk, Va..... 87

Iron as a Hæmatic, by W. A. Haley, M. D., Durant, I. T..... 90

Is America a Spectacled Nation? by Francis Valk, M. D., New York..... 158

"Indigestion," an Etiological Factor in Diabetes, by J. Will McCannless, M.D. 385

Lead Poisoning, by Edwin R. Maxson, M. D., Syracuse, N. Y..... 305

Mastoiditis, by Clarence Porter Jones, M. D., of Newport News, Va..... 14

Monograph Read Before the West Chicago Medical Society on a New Method of Delivery by the Obstetrical Tractor, by E. D. St.-Cyr, M. D., Chicago..... 15

Medical School Inspection in the City of New York, by H. P. Johnston, M. D., New York City..... 154

Methyl Alcohol Poisoning, by G. E. Hartshonn, M. D., South McAlister, I. T. 164

Malaria and Its Treatment, by Dr. E. N. Wright, Olney, I. T..... 233

Medical Education in the United States, by Frank Billings, M. S., M. D., Chicago..... 393

On the Diagnosis of Ectopic Gestation, by H. A. Royster, M.D., Raleigh, N.C. 1

Ovarian Tumors, by W. P. Whittington, M. D., Asheville, N. C..... 307

Oil of Yellow Pine, by J. D. MacRae, M. D., Fayetteville, N. C..... 311

President's Address Delivered Before the Seaboard Medical Association, by Dr. Albert Anderson, Wilson, N. C..... 77

Posture and Manipulation in Rectifying Uterine Misplacements, by Chas. E. Whilluck, M. D., Pillsford, Mich..... 82

Pernicious Malarial Fevers, by W. C. Graves, M. D., South McAlister, I. T... 83

Report of My Own Case of Yellow Fever, in Progreso, Yucatan, by Edward T. Hargrave, M. D., Norfolk, Va..... 4

Report of Some Surgical Cases Treated at the James Walker Memorial Hospital, Wilmington, N. C., by Joseph Akerman, M. D., Wilmington, N. C. 7

Septicemia and the Curette, by H. Plympton, M. D., Brooklyn, N. Y..... 8

Some Points in the Treatment of Functional Disorders in the Sexual Organs of the Male, by Frederic R. Sturgis, M. D., New York..... 226

Should Physicians Use Their Knowledge to Prevent Disease, or Should They Simply Treat Existing Conditions, by J. M. Aikin, M. D., Omaha, Neb..... 297

Some Surgical Uses of Carbolic Acid Not Given in Text-Books of Therapeutics, by Richard E. Lee, M. D., Clinton, N. C... . 301

Syphilitic Manifestations in the Mouth, by William F. Bernart, Hot Springs, Ark..... 309

Surgical Treatment of Tubercular Peritonitis, by D. S. Fairchild, M. D., Clinton, Iowa..... 315

Some Thoughts on Tuberculosis and the Necessity for a State Sanatorium for the Consumptive Poor by A. A. Moore, M. D., Camden, S. C..... 389

The Value of Palpation in Certain Abdominal Diseases, by Dr. F. T. Merriwether, Asheville, N. C. 11

The Organization of the Medical Profession, by George W. Pressly, Charlotte, N. C..... 75

The Significance and Treatment of Cough, by William F. Milroy, M. D., University of Nebraska.. 80

The Medical Man of the Future, by Stanley H. Graves, M. D., Norfolk, Va..... 149

Tetanus, in the Light of Modern Treatment, with a Report of Three Cases, by Lawrence E. Holmes, M. D., Biltmore, Asheville, N. C..... 371

Unnecessary Martyrdom Sometimes Necessary, by James W. Squires, M. D., Churnbusso, Ind..... 91

Editorials.

A Movement Toward Reciprocity in Licensing..... 29

A Conference Regarding the Bubonic Plague..... 169

Brain Symptoms in Ear Disease..... 95

Burns and Scalds..... 239

Beards on Operating Surgeons..... 241

Broadoaks Sanatorium..... 323

Cold Water and Nerve Energy..... 168

Can Bovine Tuberculosis be Transmitted to Man?. 319

Coal Tar Preparations..... 406

Dr. Lorenz's Visit and Crippled Children..... 94
Dr. J. C. Walton..... 97
Diagnosis of Typhoid Fever 167
Dangerous Medication..... 322
Dr. Billings' Address at New Orleans..... 403

Electrolysis..... 27
Exercise as a Remedy..... 406

Fruit for the Sick..... 96
Fish Food..... 323
Fruit Remedies..... 405

Giddiness..... 242

Hot-Air in Rheumatism... 241
Heart Disease..... 319

Is There Sufficient Restraint from Vice Thrown Around Students at Our Medical Institutions?.... 28
Individual Consumption of Alcohol..... 31
International Statement Concerning Alcohol..... 168

Legislation in Kissing..... 94

Medical Nostrums and the Public..... 405

Original Articles Sent to More than one Journal.. 96

Pathology and Treatment of Epilepsy..... 93
Perils of Old Age..... 321

Rheumatic Fever..... 95
Revival of the Index Medicus..... 170

Substitution for Vaccination a Failure..... 28
Serum Treatment of Rheumatism..... 29
Smallpox in North Carolina 167
Some Early Symptoms of Paralysis..... 241
Some Interesting Statistics 320

The Medical Treatment of Gall-Stones..... 30
The Rontgen Ray in Gynecology..... 30
The Plague in San Francisco..... 31
The Plague..... 169
The Vampire Bat..... 169
The Legal Definition of the Practice of Medicine in North Carolina..... 239
The Intravenous Injection of Formic Aldehyde in Blood Poisoning..... 240
The Influence of the Blood on the Nerve Centers.... 242
The Relation of Trees to Cancerous Growths..... 321
The Decay of the Teeth... 322
The Journal of the American Medical Association. 403
The New Code of Medical Ethics..... 404
The American Medical Association..... 404

Obituaries.

Dr. J. G. Ramsay..... 97
Dr. T. Gillard Thomas, New York..... 243
Dr. William Elias B. Davis, Birmingham, Ala..... 243
Dr. Joseph Christopher Shepard, Wilmington, N. C..... 244

Correspondence.

The fourth manifesto giving opinions of physicians on Alcohol..... 244
The Thanks We Get..... 245
The Fiftieth regular annual meeting of the North Carolina State Medical Society..... 246
The Hospital Nurse, by Lillian Olive Huey..... 246

Literary Notices.

Dr. George M. Gould'i Biographic Clinics, (P. Blakiston's Sons & Co., Philadelphia.)..... 37

January Cosmopolitan..... 101

Review of Reviews for February..... 173

Scrsbner's Magazine for December, 1902..... 35

The December Lippincott's Magazine..... 36
The Review of Reviews for December..... 37
The Review of Reviews.... 100
The January Lippincott's Magazine..... 100
The January-March Forum 101
The February Lippincott's Magazine..... 173
The April Review of Reviews..... 328
The May Cosmopolitan.... 410
The May Review of Reviews..... 410
The April Fortnightly. ... 410

W. B. Saunders & Co., announces the early publication of a number of new books..... 327

Abstracts.

Appendicitis..... 101
A New Method of Shortening the Round Ligaments Intraperitoneally for Retroversion..... 104
A Study of Burns..... 110
A Clinical Study of Diplopia 124
An Observation Showing that the Flagella of the Malarial Parasite are Fertilizing Elements.... 126
Acute Nervous Diseases... 126
Anesthesia..... 178
Appendicitis..... 184
An Improved Method for the Microscopical Diagnosis of Intermittent Fever..... 186

Atonic Gastric Insufficiency and Dilatation..... 187
Antipyresis in Children.... 192
Appendicitis from a Physician's Standpoint..... 259
Acquired Dislocation of the Hip in a Child..... 260
Appendicitis..... 269
Arsenic in the Treatment of Chorea..... 332
A Contribution to the Study of Cancer Mortality..... 334
Adrenalin as a Stimulant.. 345
A Family of Bleeders..... 346

Buttermilk as Infant Food. 43
Bacilluria and Cystitis in Typhoid Fever, and the Action of Urotropin Thereon..... 112
Boiling as a Method of Sterilizing Catheters..... 191
Butter of Antimony in Surgical Tuberculosis..... 254
Bacteria in Butter..... 337

Causation and Treatment of Thrombosis Occurring in Connection with Typhoid Fever..... 39
Contagious Conjunctivitis. 115
Cocaine Habit in India.... 132
Cure of Rodent Cancer by Electricity..... 252
Convulsions in Typhoid Fever..... 257
Conservative Operations on the Ovary..... 261
Cerebral Syphilis..... 338
Conservative Surgery of the Tubes and Ovaries..... 342

Dyspepsia and Its Treatment by Antiseptics..... 43
Diagnosis by Vaginal Examination..... 116
Diagnosis in Surgical Diseases of the Kidney..... 183
Diabetes Insipidus..... 186
Douches and Irrigants..... 267
Diet in Asthma..... 269
Dimness of Vision in Diseases of the Kidney Characterized by Albuminuria 335

Entrance of Air Into the Veins..... 108
Empyema in Children..... 112
Effect of Climate on Laryngeal Tuberculosis..... 122
"Examination of Milk by General Practitioner".. 175
Early Treatment of Quinsy 252
Electrothermic Hysterectomy..... 264
Etiology of Tuberculosis... 343
Empyema..... 402

Fractures of the Lower End of the Radius..... 43
Fatal Acetonæmia Following an Operation for Acute Appendicitis..... 92
First Stage of Labor..... 113
Fibroma of the Ovary..... 130
Forty Cases of Typhoid Fever Treated by Benzoyl-Acetyl Poroxide (Acetozone)..... 238

Fingernails..... 264
Fracture of the Neck of the Femur in Children..... 270
Fatty Degeneration of the Bladder..... 333
Fixation of the Prolapsed Kidney..... 401

Gunshot Wounds of the Abdomen from a Military Standpoint..... 119
Gallstones..... 191

Hypertrophic Tuberculosis of the Intestine..... 26
Hair Balls and Other Concretions in the Stomach.. 44
How Eye Strain Causes Headache..... 174
Hot Water Injections for Vascular Neoplasms..... 188
Habitual Constipation in Infancy..... 266

Intraperitoneal Hemorrhage Incident to Ectopic Gestation..... 37
Instructions to Those Having Gonorrhœa..... 40
"Influence of the X-Ray on Malignant Growths".... 103
Infantile Convulsions..... 114
Ipecacuanha Alkaloids.... 116
Intravascular Antisepsis.. 166
Intravenous Administration of Anti-Diphtheritic Serum..... 237
Importance of a more Radical Operation in Carcinoma Cervicis..... 251
Injurious Renal Mobility in Relation to Gynæcology; Founded on the Examination of One Hundred Consecutive Patients..... 253
Intestinal Obstruction Due to Gall-Stones..... 257
Incontinence of Urine in the Female..... 258
Intraperitoneal Hemorrhage..... 259
Intravenous Injections in Syphilis..... 260
Infective Arthritis..... 262
Influence of Drugs on Blood Pressure..... 263

Lung Complications in Appendicitis..... 42
Lodgment of a Foreign Body in the Air Passages for Seventy-two Days.... 92
Laparotomy in Typhoid Perforation..... 107
Malignant Endocarditis... 105
Myelopathic Albumosuria. 108
Mercuric Cataphoresis in Cancer..... 128
Mimicry of Pregnancy by Fibroid and Ovarian Tumors..... 182
Method of Giving Mercury in Syphilis..... 184
Malarial Fever in Infancy. 331

Nephropexy by a New Method..... 25
New Method of Treating the Persistent Vomiting of Pregnancy..... 40
Note and Case of Infection by Bacillus Aerogenes Capsulatus, in Which the Organism was Demonstrated in the Circulating Blood During Life..... 118
Notes on Sleeping Sickness 254
Necrosis and Spontaneous Elimination of a Large Uterine Fibroid..... 255

On Colon Catarrh..... 40
On Direct Endoscopy of the Upper Air Passages and Esophagus..... 105
Obscure Abdominal Pain.. 184
On the Treatment of Glycosuria and Diabetes Mellitus with Aspirin..... 190
On Reflex Convulsions in Growing Boys and Girls. 339
On Certain Forms of Menstrual Suffering, and the Action of Permanganate of Potash Therein..... 341

Placenta Previa..... 26
Perforation of the Bowel in Typhoid Fever..... 38
Pyelitis in Infants—Symptoms and Treatment..... 42
Pregnancy and Labor After a Uterine Rupture..... 111
Pyloric Stenosis in Infants 114
Prostatic Hypertrophy.... 130
Pathology of Typhoid Fever 181
Pathology of the Tissue Changes Induced by X-Rays..... 265
Permanent Effects of the Sanatorium Treatment of Phthisis Among Members of the Working Classes.. 343
Puerperal Eclampsia..... 344

Rectal Feeding..... 113
Remarks on Acute Myelitis, and Report of a Case of Tuberculous Meningo-Myelitis..... 255
Respiratory Exercises in the Naso-Pharyngeal Lesion in Childhood..... 256
Raw Cow's Milk in Infant Feeding..... 334
Rheumatoid Arthritis as a Cerebrospinal Toxæmia. 338
Rupture of the Uterus..... 340

Some of the Orthopedic Conditions of the New-Born Demanding Early Surgical Treatment.... 41
Spastic and Syphilitic Spinal Paralysis..... 109
Suprapubic Prostatectomy. 114
Shortening the Round Ligaments Per Vaginam..... 118
Suprarenal Liquid with Chloretone in Diseases of the Ear and Nose..... 120
Some Observations Upon the Value of the Phloridzin Test for Estimating the Functional Capacity of the Kidneys, Renal Sufficiency..... 122
Some Points on the Etiology of Tuberculosis..... 124
Sciatica and its Treatment 130
Successful Splenectomy During Typhoid Fever .. 175
Static Electrotherapy..... 183
Sepsis Following Abortion and Labor..... 184
Sarcoma of the Ovary..... 189
Surgical Treatment of Empyema. A Report Based Upon Seventy-five Cases Observed Chiefly in St. Mary's Hospital for Children..... 192
Splenic Anemia..... 262
Serumtherapy Against the Bacillus of Dysentery.... 266
Syphilis of the Nervous System..... 317
Spontaneous Rupture of the Heart, with a Report of Seven Cases..... 337
Sarcoma of the Middle Ear and Mastoid..... 344
Surgery of Gall-Bladder... 345
Sunshine and Fresh Air, vs. The Finsen Ultra Violet Rays and the Roentgen Ray in Tuberculosis of the Joints and Bones..... 402

The Treatment of Leucorrhea..... 38
The Action of the X-Ray and Its Uses in Therapeutics..... 41
Treatment of Insomnia.... 45
The Etiology of Prostatic Hypertrophy..... 106
The Treatment of Atonic Dilatation of the Stomach by Means of High-Frequency Currents..... 109
The Mechanical and Combined Plastic and Mechanical Treatment of Retrodeviations of the Womb..... 110
The Surgical Treatment of Tuberculous Cervical Adenitis..... 111
The Ocular Manifestations in Chronic Bright's Disease..... 112
The Treatment of Early Cancer of the Larynx.... 113
The Hydatid Mole..... 115
The Relations Between Acute and Chronic Diseases..... 119
The Treatment of Pneumonia..... 120

The Genesis of Glioma Retinæ in Neuroglia..... 124
The Use of the Stomach-Tube..... 128
The Importance of Diagnosis in Skin Diseases... 132
The Use and Abuse of Ether..... 132
The Nervous Affections of the Heart..... 134
The Diuretic Action of Rectal Irrigation. The Specific Action of Normal Saline Solution in the Products of Diuresis..... 176
Treatment of Pneumonia.. 176
The Bladder after Hysterectomy..... 177
The Prophylactic Treatment of Enteric Fever by Inoculation..... 177
The Surgical Treatment of Cirrhosis of the Liver... 179
Treatment of Infantile Eczema..... 179
The Treatment of Nervous Affections of the Heart.. 181
Typhoid Fever with Trichiniasis and Eosinophilia. 185
The Blood of Pregnancy and the Puerperium..... 186
Tuberculosis..... 187
The Surgical Treatment of the Enlarged Prostate... 187
The Malignancy of Joint Tuberculosis..... 189
The Surgical Treatment of Cancer of the Uterus.... 189
The Exploratory Method of Rib-Resection in Old Pyothorax..... 190
The Use of Cinnamic Acid and Sodium Cinnamate in the Treatment of Tuberculosis..... 190
The Malignancy of Joint Tuberculosis. Illustrated by a Series of Forty-seven Cases..... 191
The Widal Reaction in Infancy and Early Childhood..... 192
The Future of Electrotherapeutics..... 250
The Evil Effects of Sugar in Subjects of Incipient Cataract..... 253
The Diagnosis and Treatment of Various Forms of Septic Synovitis..... 254
The Transference of Bovine Tuberculosis to Man..... 256
The Education and Development of Neurotic Children..... 257
The Operative Treatment of Tubercular Arthritis. 258
The Importance of the Early Treatment of Catarrhal Conditions of the Upper Air Tract in Children..... 258
Traumatic Rupture of the Spleen..... 261
The Treatment of Nocturnal Incontinence of Urine in Children..... 261
The Treatment of Pleurisy with Effusion..... 265
Talma's Operation..... 265
The Occurrence of Gout in the United States..... 266
The Etiology of Dysmenorrhea..... 268
The Surgery of Acute Appendicitis..... 268
The Prognostic Value of Tubercle Bacilli in the Sputum..... 318
The Gelatin Treatment of Hæmoptysis..... 329
The Gas Evolved in the Decomposition of Hydrogen Dioxide by Pus..... 329
The Treatment of Puerperal Convulsions..... 330
Treatment of Trachoma by X-Ray Tube Exposure and by High-Frequency Current..... 331
The Radical Cure of Hydrocele..... 332
The Treatment of Epileptics..... 33
The Side Chain Theory.... 334
Tumors of the Bladder.... 335
The Aetiology of Endocarditis, with Especial Reference to Bacterial Agencies..... 336
The Treatment of Eclampsia..... 337
The Prognosis of Tuberculous Peritonitis in Children..... 339
The Surgical Treatment of Cirrhosis of the Liver... 339
The Best Method of Administering Quinine..... 340
The Control of Consumption by the Public Health Authority..... 341
The Radical Cure of Inguinal Hernia with Local Anæsthesia..... 341
The Nature of Hydrosalpinx..... 342

Ulcer of the Bladder..... 191
Ureters..... 267

Varicose Veins..... 126
Vaccination and Serum Therapy Against the Bacillus of Dysentery..... 329

X-Ray as a Diagnostic Agent in Phthisis Pulmonalis..... 117
X Light in Therapeutics.. 177
X-Ray in Therapeutics.... 183

BOOK NOTICES.

A Story of a Living Temple, by Frederick M. Rossiter, M. D., and Mary Henry Rossiter, A. M..... 35
A Tale of Washington—"Around the Capital with Uncle Hank," by Thomas Fleming..... 100
A Manual of Toxicology, by Albert H. Brundage, M. D., Brooklyn..... 171
A Text-Book of Clinical Medicine, Principles of Diagnosis, by Clarence Bartlett, M. D..... 173
A Text-Book of Practical Medicine, by William Gillman Thompson, M. D., New York..... 246
A System of Physiologic Therapeutics, edited by Solomon Solis Cohen, M. D..... 248
A Manual of Medical Treatment of Clinical Therapeutics, by I. Burney Yeo, M. D..... 250
A Text-Book of Legal Medicine and Toxicology. Edited by Frederick Peterson, M. D., New York; and Walter S. Haines, M. D..... 324
A Practical Treatise of Materia Medica and Therapeutics, by Robert Bartholow, M. A., M. D., LL.D., Philadelphia..... 408

Culbreth's Materia Medica and Pharmacology, by David M. R. Culbreth, M. D.. Baltimore..... 98
Clinical Treatises on the Pathology and Therapy of Disorders of Metabo-

lism and Nutrition. By Carl von Noorden, Part III..... 326

Clinical Treatises on the Pathology and Therapy of Disorders of Metabolism and Nutrition. By Prof. Carl von Noorden, Authorized American edition translated under the direction of Boardman Reed, M. D., Part II.... 327

Diseases of the Skin, by H. Radcliffe-Crocker, M. D. 247

Diseases of the Rectum and Anus, by Samuel Goodwin Gant, M. D..... 248

Diseases of the Pancreas, Diseases of the Suprarenal Capsules, and Diseases of the Liver. By Dr. L. Oser, of Vienna; Dr. E. Neusser, of Vienna; and Drs. H. Quincke G. Hoppe-Seyler, of Kiel. Edited, with additions, by Frederick A. Packard, M. D., Philadelphia; and Reginald H. Fitz, M. D., Boston..... 326

Diseases of the Stomach. By Dr. F. Riegel, of Giessen. Edited, with addition, by Chas. G. Stockton, M. D. 327

Diseases of the Heart and Arterial System, by Robert H. Babcock, A.M., M. D., Chicago..... 407

Iuternational Clinics, by Henry W. Cattell, M. D. 32

International Clinics, by leading Members of the Medical Profession throughout the world, edited by Henry W. Cattell, M. D., Philadelphia, et. al..... 171

Lessons and Laboratory Exercises in Bacteriology, Allen J. Smith, M. D., Galveston, Texas..... 34

Lea's Series of Medical Epitomes.—An Epitome of Physiology for Students and Practitioners of Medicine, by Theodore C. Guenther, M. D. and Augustus E. Guenther, B. S. 172

Manton's Obstetrics, by W. P. Manton, M. D..... 247

Medical Jurisprudence, Insanity and Toxicology. By Henry C. Chapman, M. D., Philadelphia..... 324

Mary North, by Lucy Rider Meyer..... 409

Obstetrics, by Henry J. Garrigues, M. D., New York..... 33

Obstetrical Nursing for Nurses and Students, by Henry Enos Tuley, M.D., Louisville, Ky..... 35

Physiology, Fear and Faith, by Lyman Beecher Sperry, M. D..... 34

Progressive Medicine, Vol. IV, December, 1902, Edited by Hobart Amory Hare, M. D., Philadelphia..... 99

Progressive Medicine. Fifth Annual Series, Edited by Hobart Amory Hare, M. D..... 249

Practical Points in Nursing. By Emily A. M. Stoney, South Boston, Mass..... 325

Prevention of Disease, by Wilmot Evans..... 409

Reginal Minor Surgery, by George Gray Van Schaick, M. D., New York 34

Schalek on Dermatology, by Alfred Schalek, M. D., Chicago..... 34

Saunders' Medical Hand-Atlases—Atlas and Epitome of Diseases of the Mouth, Pharynx, and Nose, by Dr. L. Grunwald, of Munich. Edited with additions by James E. Newcomb, M. D..... 98

Saunders Medical Hand-Atlases—Atlas and Epitome of Human Histology and Microscopic Anatomy By Privatdocent Dr. J. Sobotta, of Wursburg. Edited with additions, by G. Carl Huber, M. D., Ann Arbor, Mich..... 99

Saunders' American Year-Book, under the editorial charge of George M. Gould, M. D..... 248

Surgical Anatomy and Operative Surgery. By John J. McGrath, M. D., New York..... 324

Surgery of the Head, by Bayard Holmes, B. S., M. D., Chicago..... 407

The Physiciar's Pocket Book, by J. J. Taylor, M. D 31

Transactions of the American Dermatological Association. 1901..... 31

The Reference Hand-Book of the Medical Sciences, by various writers. Edited by Albert H. Buck, M. D., New York City..... 32

The Practical Medicine Series of Year Books, issued monthly under the general editorial charge of Gustavus P. Head, M. D 32

The Practice of Surgery, by Henry Wharton, M. D... 33

Transactions of the Royal Acedemy of Medicine in Ireland. Vol xx, 1902.... 33

The A B C of Photo-Micrography, by W. H. Walmsley..... 35

Transactions of the Association of American Physicians, 1902..... 35

The Practical Series of Year Books. Vol. X, by W. L. Baum, M. D., and Hugh T. Patrick, M. D., Chicogo 35

Transactions of the New Hampshire Medical Society, 1902..... 35

The Practical Medicine Series of Year Books, under the general editorial charge of G. P. Head, M. D..... 171

Transactions of the American Laryngological Association, 1902..... 171

The American Year-Book of Medicine and Surgery for 1903, edited by George M. Gould, M. D..... 172

The Practical Medicine Series of Year Books.... 173

Transactions of the American Surgical Association, Vol. XX. 1902..... 173

The 1903 Standard Medical Directory..... 247

Transactions of the Sixty-Ninth Annual Session of the Medical Society of the State of Tennessee.. 249
Therapeutics of Infancy and Childhood, by A. Jacobi, M. D 250
The Surgical Diseases of the Genito-Urinary Organs. By E. L. Keyes, M. D., and E. L. Keyes, Jr., M. D., New York... 323
Tuberculosis. By Norman Bridge, M. D., Chicago.. 325
The Care of the Baby. By J. P. Crozer Griffith, M. D., Philadelphia 325
The Internal Secretions and the Principles of Medicine, by Chas. E. de M. Sajous, M. D., Philadelphia. 326
The Worth of Words. By Dr. Ralcy Husted Bell. With introduction by Dr. William Colby Cooper... 327
Transactions of the Vermont State Medical Society for 1902..... 407
The Practical Medicine Series of Year Book, by Gustavus P. Head, Chicago..... 408
Transactions of the Medical Society of New Jersey, 1902 408
The Turk and His Lost Provinces, by William Eleroy Curtis..... 409
The International Medical Annual, a Year Book of Treatment and Practitioners' Index, 1903..... 409
Two Heroes of Cathay, by Luella Miner..... 410
The Transactions of the Ohio State Medical Society, 1902..... 410
W. B. Saunders & Company announces the establishment of a branch of their business in New York... 172

Coca as a Depurative of the Blood.

The problems that confront the practitioner during the heated months, are usually the outgrowth of previous unsoundness of health which have settled into a condition more or less chronic, or those more acute ills engendered through overindulgence in such bounties as are now lavishly displayed. In either of these broad classes, when physical strength and mental power is at a low ebb, there is no one remedy better adapted than Coca. It is an adjuvant to all known forms of treatment. The knowledge of this drug has come to the busy scientific world through its efficacious use in allied conditions requiring the most urgent support to maintain life. The Andean traveler toiling up rugged steeps through bleak and uninhabitable regions, at an altitude where sheer existence is sustained with difficulty, is supported in his efforts through the use of Coca, the leaves of which he chews unceasingly. The seemingly marvelous action of these, apparently simple leaves, has only recently been learned through a study of the physiological properties of their constituents.

Coca primarily acts as a depurative of the blood, and as it is well known, when this nutrient stream is freed from the products of tissue waste—and not until then—the muscular and nervous systems are in a condition where physiological repair can be effected. Whether the exhaustion be of a temporary nature, as that induced through excessive physical exertion, or be due to the prolonged presence of disease, the products of combustion in the human machine—the ashes and the clinkers—must first be thrown out in order that the entire system shall work more effectively. Coca, it is known, will bring about this excreative action in a phenomenal way, and when the volatile principles of this drug are carefully preserved through skilled manipulation—such as in the famous Vin Mariani—there is presented a depurifier and supporter *par excellence.*

Pain and Its Remedy.

By J. D. Albright, M. D., Phila., Pa.

Believing that the bar in the way of the profession, in the use of opium, is its tendency to evil after-effects, and the harumscarum idea that a little opium will induce the habit, and those terrible concomitants (?) I wish to call their attention to a preparation that I have long been using, and have not yet seen one case in which the habit was formed, nor ever had any complaint as to evil after-effect. This remedy is papine, a preparation of opium from which the narcotic and convulsive elements have been removed, rendering it a safe remedy for children, as well as for those of mature age. * * * Up to a year ago I always gave chlorodyne tablets and viburnum for after-pains. Then I came across a case that refused to yield to them in the time I was accustomed to have them do so, and I concluded to try papine. Its results, to make the story short, were such that I now never give anything else for after-pains, and they yield in about half the time that was required with the above-named remedies.—Medical Summary.

Notice-- SANDER & SON EUCALYPTOL is invaluable in inflammation of the mucous membranes, and in all septic and infectious diseases. Apply to Dr. SANDER, 88 Lincoln Avenue Chicago, Ill. for sample and literature of Sander's Eucalyptols Meyer Bro.'s Drug Company, St. Louis, Mo., Sole Agents.

MAILED TO PHYSICIANS ON RECEIPT OF $ 1.00

RELIEVES CONGESTIONS, ENCOURAGES PERISTALSIS,
REMOVES SPASMODIC CONDITIONS,
REGULATES THE VASCULAR SUPPLY.

FOR ALL FUNCTIONAL UTERINE AND OVARIAN DISORDERS

SAMPLES AND LITERATURE ON APPLICATION. MELLIER DRUG COMPANY, ST. LOUIS.

CAPSULES

of Cypridol do not salivate or produce dyspepsia and the emaciation which is inevitable with other mercurials. 1/32nd grain in each capsule.

Sold in Bottles of 50.

CYPRIDOL

A 1% SOLUTION OF MERCURIC IODIDE IN AN ASEPTIC OIL

IN

SYPHILIS

INJECTIONS

of Cypridol are vastly superior to all soluble or insoluble mercurials used hypodermically.

They are non-irritating and free from all untoward after effects.

Dispensed only in graduated tubes.

6 tubes in a box.

CEREVISINE

succeeds admirably in the treatment of furuncles, urticaria, acne and boils which promptly subside and disappear under its influence.

PURE DESICCATED YEAST

CEREVISINE

IN

SKIN DISEASES

CEREVISINE

Is indicated in cases of psoriasis, herpes and eczema; its effects being associated with corresponding improvement in the general health.

U. S. Agents, E. FOUGERA & CO., 30 N. William St., New York.

Euquinine in the Treatment of Malaria.

It is useless to dilate upon the virtues of quinine as a specific in malaria, but nobody will deny that valuable as the drug is, it posses many drawbacks. Headache, nausea, loss of appetite, tinnitus aurium, vertigo, eruptions, and urticaria are some of the concomitant effects of the physiologic action of quinine. We have been looking for a substitute for quinine, but there are none, nor can we ever hope to find one. Improved forms of quinine are, however, quite feasible, and the best among them is, according to Dr. Luigi De Carlo, euquinine —quinine carbonic ether, which is tasteless and practically free from the untoward effects of quinine. Basing himself on the results of 18 cases of malaria treated with euquinine and studied very carefully, the author says that we have in this new drug one of the most precious, most efficacious remedies in infantile therapeutics. Of the 18 cases treated, 7 were of the tertian type, 5 of the quartan, 3 of the quotidian, 1 of the double quartan, and 2 of irregular type. In all the results were excellent.

The author summarizes his conclusions as follows: (1) Euquinine constitutes an excellent and positive remedy in all forms of malarial infection, whether acute or chronic. (2) The fever is always jugulated in a variable but relatively short period. (3) The administration of euquinine in large doses and for a long time has never brought about any gastro-intestinal disturbance. Combined with benzonaphtol it is efficacious in those forms of malaria which are accompanied by intestinal infection. (4) The duration of the attack, both of the algid and of the thermic stage, has been relatively shorter. (5) Euquinine effectively brings about a reduction of the enlargement of the spleen. (6) Euquinine has marked hematogenic properties.—Gaz. d. Osped. e. d. Clin., 1902, No. 141.

Dr. Joaquin Aguilor reports five cases of paludism in which he employed euquinine with brilliant results. The author especially emphasizes the fact of the perfect innocuousness of euquinine. Large doses (15, 30. or even 90 grn. a day) have not been followed in adults by any disturbing by-effects, such as gastric disturbance, tinnitus aurium headache, etc.

The first case was one of tertain ague. The treatment was commenced on the intermediary day, 15 grn. divided in three doses and on the third day this was increased to 24 grn. in three doses. The euquinine was administered in coffee. After a week's treatment the malarial attacks disappeared completely. During the entire period the patient did not show a single symptom of intolerance.

The second case, one of malaria of the quotidian type, was in a child of five years old. The chill was of short duration, but the fever was very high, reaching some days 105 degrees F. and more. There was also a gastro-intestinal catarrh, with fetid diarrhea. In a case like this, quinine would certainly have excited gastric intolerance; but euquinine was given for two days in 12-grn. daily doses and for three days in 9-grn. doses, without producing the slightest disturbance.

In this case the euquinine was given in chocolate. The attacks disappeared after the second dose.

The third case was one of severe suborbital neuralgia of long standing. The attacks came on regularly every three or four days, and lasted twelve to twenty hours.

None of the anti-neuralgic remedies proved of any value. Having become convinced that the neuralgia had a malarial basis, the author administered two 8-grn. doses of euquinine, in sherry wine. When the attack came on it lasted only two hours. The lady took the euquinine for five days more, and has not had a return of the attack in two months.

The fourth case was in a child of ten; malaria of the tertian type. The attack was cured in two days, with 12-grn. daily doses of euquinine, taken in divided portions. For three days more the euquinine was given in doses of 9 grn. per day. There was no symptom of intelorance of any kind.

The fifth and last case was in a girl one and one-half years old; paludism of the remittent type, but with very pronounced gastro-intestinal symptoms. During the period of relative apyrexia, a 5-grn. dose of euquinine was given in milk, and the same dose repeated in an hour. The next attack was much milder, and in eight days the child was fully convalescent. Also in this case there was absolutely no intolerance or gastric disturbance.

In conclusion, the author says: "As seen from the above reported cases, quinine in assuming the new chemical form has lost nothing of its properties as a true specific against malaria, but it has lost the inconveniences which attach to the alkaloid quinine, such as the bitter taste and the symptoms of cinchonism, which sometimes appear even with very small doses of quinine. Various physicians, among them Overlach, who have administered this product, say that they noticed tinnitus aurium after euquinine; but says Overlach, the tinnitus differs from that of quinine: the tinnitus after quinine becomes intensified with each additional dose, while the one after euquinine disappears under con-

INDIGESTION,

DIARRHEA,

CHOLERA MORBUS,

SUMMER COMPLAINT,

—AND ALL—

"Bowel Troubles"

Incident to the warmer months are more favorably influenced by the administration of

ALKARHEIN

(Alkaline Elixir Rhubarb Compound with Pancreatin—Merrell)

than by any other remedy.

Alkarhein is also of the greatest service in the treatment of **Chronic Gastric and Intestinal Indigestion.**

Headache due to faulty metabolism is promptly relieved by **Alkarhein.**

The logical results following the administration of **Alkarhein** in cases of **Gastric and Intestinal Disorders** are:

Removal of the irritating material from the alimentary canal, inhibition of the fermentative process, intestinal antisepsis and promotion of digestion.

SEND FOR CIRCULAR MATTER.

The Wm. S. Merrell Chemical Co.,

CINCINNATI.

Branches:

NEW YORK. NEW ORLEANS. CHICAGO. SAN FRANCISCO.

tinued administration. This proves that euquinine does not exercise an accumulative effect on the brain, which fact is of inestimable value in cases in which it is necessary to give large and frequently repeated doses."—Revista Valenc. de Cienc. med., 1902, No. 36.

Dr. Audrey has had a case which has satisfied him of the value of euquinine as a substitute for the salts of quinine in common use.

A boy thirteen years of age with a three weeks' history of ague. The attacks were found to be typical, with cold, hot, and sweating stages. The temperature reached its maximum at 10 A. M., 39.8 deg. C. on the first day, 40.7 deg. on the second. The child was very feeble and very pale. The spleen was enlarged, having a vertical diameter of 11 Cm. For four days 1.5 Gm. (23 grn.) of euquinine was administered daily; for the next three days 1 Gm. (15 grn.); and 0.5 Gm. (7½ grn.) on the eighth, tenth, and fourteenth days respectively. The treatment was followed by complete success. On the first day the temperature reached 38.4 deg. C.; but never afterwards, although taken every two hours, was it found to be above 37.5 deg. There was profuse sweating for the first four or five nights. The child complained of nausea or epigastric pain. He improved rapidly under treatment, the enemia disappearing (the red blood corpuscle count increased from 1,530,000 to 4,500,000). He left the hospital practically cured after three weeks' stay, his splenic dulness measuring 6 Cm. vertically.

No ill-effect was noticed to follow the use of euquinine.—Brit. Med. Jour. (Epit.), 1903, No. 2196.

Enteric Chemistry.

By Rolland H. French, P. D.

The chemical conditions existing in the intestinal tract, in the normal state of health, and those which are liable to exist in deranged conditions are probably well understood by the majority of the medical profession.

There are a few points however which I have thought it might be beneficial to mention, and perhaps a few suggestions from a chemical standpoint may prove of assistance in deciding upon the course of treatment, which will give the most prompt and permanent results in cases of intestinal disorders.

In their normal condition the intestines are alkaline and the ferments which are there secreted can only accomplish their work when in an alkaline medium. As to just what chemical salt or salts this alkalinity is due, there has been, and still is, quite a difference of opinion; however at the present time the consensus of reports on the subject would indicate that it is a mixture of the carbonates or bicarbonates of sodium and potassium.

When symptoms of fermentation and indigestion in the intestines are noted, then it is certain that the normal chemical conditions have been altered or such disorder could not have occurred.

First: The alkalinity must have been destroyed. Why? Because fermentation is not induced in an alkaline medium.

Second: Partly digested food such as sugar and starch containing material must be present. Why? Because such a condition produces and encourages acetic and butyric fermentation, one of which or both is unquestionably occurring.

Third: An acid condition must exist. Why? Because the ferments are not being secreted or at least are not performing their functions, which result can only be attributed to acidity.

Taking into consideration the above mentioned chemical conditions, in the trouble we have under consideration, it is evident, that a remedy to meet the demands in this case must contain ingredients which will counteract the existing unnatural conditions, and in such a way as to restore a normal state as soon as possible.

It must have the quality to first restore the alkaline condition and yet produce no caustic burning effect; the bicarbonate of sodium or potassium is most effective for this purpose.

Second: Overcome and remove the fermentative conditions, which will require it to have a slightly laxative effect at the same time being a tonic to and allaying the irritation of the mucus membrane; a combination of rhubarb and golden seal has the ideal properties to accomplish this end.

Third: Stimulate the secretion of the natural ferments; a little pancreatin is an excellent agent for this purpose. There is nothing better to encourage the production or growth of a ferment or natural secretion than to place a small portion of that ferment, or the active substance in the secretion where it will come in contact with its natural source.

It is unreasonable to suppose, as a good deal has been written to indicate, that the very small amounts of pepsin or pancreatin which the preparations for stomach and intinal troubles contain, really accomplish very much in the actual natural work of these ferments. They however unquestionably do a great deal to encourage the natural secretion of these ferments and to form a nucleus upon which to commence

The Battle Creek Sanitarium.

This magnificent fire-proof structure which has been in process of erection during the past year will be completed and dedicated about June 1, 1903. There will be accommodations in the main building for 350 guests, and accommodations in other buildings for 400 more patients. One hundred and seventy-five rooms have private baths. The new building is equipped with five hyraulic elevators, electric lights, a private telephone in each room, and all modern conveniences. For information concerning the facilities afforded, terms, etc., address,

THE SANITARIUM, Battle Creek, Mich.

BROADOAKS SANATORIUM,

Morganton, North Carolina.

A Private Hospital for the Treatment of Nervous and Mental Diseases, Inebriety and Drug Habits.

ISAAC M. TAYLOR, M. D.

Dr. Taylor has resigned from the Staff of The State Hospital at Morganton and will in future devote his whole time to the Sanatorium.

ANTIGIA.

THE NEW ANODYNE.

Non-Depressing, Certain and Safe.

Combined in Tablet Form with Codeine Phosphate Quinine Sulphate and Heroin.

Samples to Physicians upon Application.

ANTIGIA CHEMICAL CO.

Richmond, Va.

their belated work, thus hastening the restoration of natural conditions.

With the above mentioned qualities our ideal remedy must have another essential feature to perfect it, namely the medium in which these medicaments are held should be preserved with alcohol, not overloaded with sugar for the purpose of preservation; alcohol discourages and prevents fermentation while sugar encourages and aggravates the condition we are endeavoring to overcome.

The remedy known as Alkarhein (Alkaline Elixir Rhubarb Compound with Pancreatin, Merrell) comes as near to possessing all of the desirable qualities above mentioned as is possible for a palatable preparation of this character.

Tuberculous Adenopathies of the Neck and Cacodylate of Soda.

A monography of M. Leclerc on the treatment of tuberculous adenopathies with cacodylate of soda, brings forth a new contribution to the therapeutics of the cacodylate.

"The effects of cacodylate medication", writes the author, "are most evident, most palpable. It was eminently logical therefore to submit to this medication the scrofulous who are par excellence individuals whose organism is very poor, while the process of nutrition is diminished. On account of their small vital resistance they furnish an excellent soil of culture for tuberculosis, and if the cacodylate of soda is not the direct remedy against this affection, and does not act in a special way on the baccillus of Koch, it vigorously stimulates the whole organism and places the patient in a better condition to resist the disease."

M. Leclerc therefore tried. He used the cacodylate of soda hypodermically in such a way that the solution in each Pravaz syringe contained 5 centigrams of pure cacodylate. First five days of treatment: daily injection of 5 centigrams; during the five following days, daily injection of 10 centigrames. Interruption of ten days. Treatment resumed with 10 centigrames during the first five days to reach 15 centigrames or three Pravaz syringes full. The 15 centigrame dose never was exceeded and no accident occurred. The injection was administered on the glutaeus maxims (alternating from side to side), aseptic measures having been resorted to previously.

In eleven observations of non-suppurating ganglia M. Leclerc noticed four times the disparition of the adenitis, or rather the reduction to a scleratic hard nut, absolutely movable on the surrounding tissues (these four cases can therefore be considered as being cured); five times an appreciable amelioration which reduced in various proportions (from one third to one half) the ganglionery massa, and twice only the result was nil.

In five observations of suppurating ganglia, there were five cures; yet, in one instance, there was a persisting hard ganglion not belonging to the ganglionary chain involved which was but slightly modified.

M. Leclerc therefore has the right to conclude that "the cacodylate of soda is very advantageously given to patients having tuberculous ganglia of the neck. It awakes their torpid organism, braces up their system, and on that account the local lesions ase ameliorated. The ganglia diminish in volume, become harder and more movable on the tissues. This medication should be administered for a long time; it is however well tolerated."

This constitutes a new triumph of the cacodylic medication, and we must indeed congratulate those who, like the Comar firm with the Clin's cacodylate, give to this new therapeutics not only an impulsion which increases daily but also a better guarantee of success.—France Medicale.

Intrauterine Amputation of Forearm.

Fieux (Rev. Mens. de Gyn., Obst. et Pædiat. de Bordeux) delivered a primipara, aged 26, of a live child with two congenital deformities. There was a tail-like appendix, over $2\frac{1}{4}$ inches long and $\frac{1}{5}$ inch thick, attached by a somewhat constricted pedicle to the upper part of the sacral region. This growth was an example of the lipoma pendulum caudiforme of Bartels, a variety of congenital lipoma of the sacrum. The right forearm had undergone amputation, almost complete, at the union of the lower with the middle third. The stump ended in a little depression, whence proceeded a fibrous band $\frac{2}{3}$ in. long and $\frac{1}{8}$ in. broad. It terminated in a well-developed little hand of the size normal in an embryo between the second and third month. Schaeffer, as long ago as 1775, reported a case of intrauterine amputation below the knee; a minute foot hung from the stump by a thin pedicle. Fieux in his case discovered a long thin band crossing the amniotic cavity, and presumed that it was the cause of the mutilation of the forearm. The hand dried up completely within a few hours, but a piece of the pedicle was fresh enough for microscopical examination. A trace of the radius and ulna was detected.—Indian Medical Record, April 9, 1903.

THE MECKLENBURG

NEW HOTEL AND SANATORIUM. MODERN COMFORTS.

Chase City, Virginia.

A new, modern hotel and Sanatorium located on the outskirts of Chase City at an elevation of 535 feet, with a thorough system of drainage and perfect sanitary conditions, surrounded by 145 acres, a large proportion of which is pine forest; far from any swamps or sluggish streams, a dry, bracing atmosphere and absence of humidity, absolute freedom from malaria and mosquitoes. On the Southern Railroad 12 hours from New York, 3 hours from Richmond and 4 hours from Greensboro, N. C. 125 large, airy bedrooms, all outside rooms, broad verandas, sun-parlors, and the building heated throughout by steam, electric lights, private baths, and every modern convenience for the care and home-like comfort of its guests.

A modern hydriatric department with skilled and experienced attendants (masseurs, etc.) for the administration in the latest and most approved form of all kinds of hydrotherapeutic methods. A complete electric outfit for the administration of galvano-faradic, static and X-ray work. The celebrated Chase City Lithia and Chloride Calcium Waters, with a well established reputation for the cure of rheumatism, gout, chronic kidney and bladder troubles, stone in the bladder or kidney and in all uric acid conditions, indigestion, catarrh of the stomach and bladder, blood troubles, scrofula, glandula enlargements, chronic eczemas, anemias, chronic malarial poisoning, nervous prostration, melancholia, hysteria, etc.

The Winkley Artificial Limb Co.

JEPSON BROS., (Sole Owners.)

Largest Manufactory of Artificial Legs in the World.

Manufacturers of the Latest Improved Patent Adjustable Double Slip Socket

Artificial Leg with SPONGE RUBBER Mexican Felt, or English Willow. **FOOT**

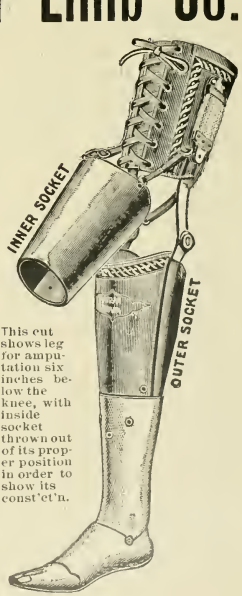
WARRANTED NOT TO CHAFE THE STUMP

PERFECT FIT GUARANTEED

From Casts and Measurements WITHOUT LEAVING HOME.....

Thousands of our Slip Socket Legs now being worn. U. S. Government Manufacturers.

Send for our New Illustrated Catalogue.



This cut shows leg for amputation six inches below the knee, with inside socket thrown out of its proper position in order to show its const'ct'n.

Minneapolis, Minn.. U. S. A.

The New Method of Treating Typhoid Fever—Benzoyl-Acetyl Peroxide, or Acetozone as an Intestinal Antiseptic, In Typhoid Fever.

Frederick G. Harris, of Chicago (Therapeutic Gazette, March, 1903), reports 128 cases of typhoid treated in Cook County Hospital, Chicago, with Acetozone. The cases first admitted seemed to indicate that the epidemic was of a mild form, but later the disease proved to be of a severe type and complications were numerous. The author obtained the most satisfactory results with aqueous solutions of 15 grains to the quart which the patients were urged to use very freely to quench the thirst, while in addition four to six fluid ounces of the solution was given every four hours as a therapeutic measure. The movements of the bowels were regulated with sodium phosphate or magnesium sulphate.

The temperatures of the patients, on admission, were high, as a rule. In 117 cases under Acetozone treatment the average duration of the fever was 18 days.

The number of recoveries was 117, or 91.4 per cent., while 11 patients died, a mortality of 8.59 per cent.; statistics of the cases of typhoid fever in the same hospital (Cook County), not treated with Acetozone show a death rate of 13.1 per cent. The author is of the opinion that under the Acetozone treatment, in favorable cases, the duration of the disease was materially shortened, and the most disagreeable symptoms were ameliorated. He declares that the characteristic fetor of the stools and the peculiar odor of the wards was greatly diminished; there was less stupor and delirium and less tympanites, and, the usual diarrhea was checked. An average of 138.12 grains of Acetozone was used in each case. Finally he reaches the conclusion that when cases can be seen during the first week of the attack and large amounts of Acetozone given, assisted by a gentle laxative, the temperature will return to the normal in from ten to twelve days.

Four cases of typhoid fever, in which Acetozone was employed with satisfactory results, were reported by Charles Emil Brack, of Baltimore, (Medical Age, January 25). In each case the treatment consisted in the use of Acetozone in Solution. The first three patients, adults received 30 grains of the drug per diem: the fourth, a child of 4 years, received 8 grains each 24 hours. Prompt recovery occurred in each case.

James Billingslea, of Baltimore, (Atlanta Journal-Record of Medicine, February, 1903) reported 25 cases of typhoid fever treated with Acetozone. The diagnoses were confirmed by board-of-health examinations. The treatment consisted in cleaning the bowels thoroughly by means of calomel. Liquid diet was prescribed and cold or sponge baths were used as occasion required. The special treatment consisted in shaking 15 or 20 grains of Acetozone powder with one quart of water, allowing the insoluble residue to subside. The patient was given the clear solution to drink freely, the whole amount of one quart being taken during twenty-four hours. The writer suggests that one part of the Acetozone solution may be mixed with three parts of milk if thought desirable. The action of Acetozone will be materially aided by the use of a mild saline laxative.

He found that the feces soon lost their disagreeable odor by this treatment, and cold baths were required to a much less extent than with other treatment. Furthermore, the nurses universally affirmed that they found patients under this treatment easier to care for. No evil effects were noted from the use of Acetozone.

A further contribution to this subject appears from the pen of J. J. Driscroll, of Chicago, (The Kansas City Medical Index-Lancet, January, 1903) who relates his experience in six cases. He found that Acetozone reduces the temperature, shortens the duration of the disease materially, while it does not seem to have any ill effects on the heart. The feces are completely deodorized in 36 to 48 hours and tympanites rapidly disappears.

At a meeting of the International Executive Committee of the Pan-American Medical Congress, held April 1st, 1903, it was decided to accept the proposal of the Argentine Republic to hold the Fourth Pan-American Medical Congress in Buenos Ayres in 1905, instead of 1903, as had been announced in their invitation of 1901 (February).

This was considered by the Committee much more advantageous for the meeting, as it has long since been realized that it would have been impossible to have had a good representation of the delegates from this and other countries, had the convention been held there in June of this year.

The meeting of the American Medical Association in New Orleans and of the Congress of Physicians and Surgeons in Washington would have prevented a number of Physicians of this country from attending; while the meeting of the International Medical Congress in Madrid would probably have attracted many from the Spanish American countries who would otherwise have been disposed to have taken an active interest in it.

UNIVERSITY OF NASHVILLE

MEDICAL DEPARTMENT.

Founded in 1850, it has enjoyed over half a century of success and now numbers four thousand, four hundred and fifty-three physicians among its graduates.

It occupies a handsome new building elaborately equipped with the best and most modern apparatus and teaching appliances.

Expenses are moderate, tuition, including all college fees, costing sixty-five dollars per course.

NEXT SESSION OPENS OCT. 1st, 1903.

For free catalogue, address

DR DILLARD JACOBS, Secretary,
631½ South Market Street,
Nashville, Tenn.

Medical College of Virginia

Established 1838.

DEPARTMENTS OF MEDICINE, DENTISTRY AND PHARMACY,

The Sixty-sixth Session will Commence September 29, 1903.

Well-Equipped Laboratories, Splendid Hospital Facilities and Abundance of Clinical Material afford Excellent Opportunities for Practical Work.

For Announcement and further information, address,

CHRISTOPHER TOMPKINS, M. D., Dean,

Richmond, Va.

UNIVERSITY COLLEGE OF MEDICINE

RICHMOND, VIRGINIA.

MEDICINE — DENTISTRY — PHARMACY.

FIRST-CLASS IN STANDARD, SCHOLASTIC
REQUIREMENTS AND CLINICAL FACILITIES.

Catalogue—100 Pages—on Application.

The Baltimore Medical College.

Preliminary Fall Course begins September 1, 1902.

Regular Winter Course begins September 25. 1902.

Excellent Teaching Facilities; Modern College Buildings; Ideal Lecture Hall and Amphitheaters; Large and Completely Equipped Laboratories; Capacious Hospitals and Dispensary; Lying-in Department for Teaching Clinical Obstetrics; Large Clinics; Send for Catalogue, and address DAVID STREETT, M.D., Dean. 712 Park Ave., Baltimore, Md.

Not Opiates but Antiphlogistine.

Pain is the greatest instrument of torture with which the practitioner has to contend. It is the one symptom to which the laity attach the utmost importance. Absence of pain is to the patient always suggestive of improvement. Its presence especially in uterine affections causes apprehension of operation and for relief of those cases who will not submit to operation and in inoperable conditions, Antiphlogistine strongly recommends itself, not only a palliative measure but an excellent remedial agent. This fact has been successfully demonstrated by the gynecologist. Its value in acute and chronic conditions of the ovary and uterus is prompt, permanent and certain.

Two different methods of application are permissible, each exercising a distinct function in therapeutics.

During menstruation the introduction of any medicinal agent into the vagina is contra-indicated and at this period the pain of catamenial irregularities can best be controlled by applying Antiphlogistine over the abdomen warm and thick and covering with cotton and a compress. This practice persisted in for several periods prevents headache, lumbar pain and other vicarious concomitant symptoms. Many women who have been physically incapacitated for a day or two each month have been permanently relieved by systematic use of Antiphlogistine at each menstrual illness. A potent influence is exerted over the sympathetic system which is so intimately associated with the physiological functions of the uterus that efferent stimulation neutralizes afferent irritation.

In the interval between menses, Antiphlogistine is successfully applied to the cervix of the uterus in the following manner: Make a small gauze sack and fill it with Antiphlogistine slightly larger in volume than the ordinary cotton tampon. Tie a string around the improvised sack and pass the Antiphlogistine tampon with dressing-forceps through the vaginal speculum to the os of the uterus, moulding around the cervix. Through the induction of osmosis and dialysis of inter-cellular fluid, intra-mural tension is quickly reduced, local analgesia and undisturbed cervical drainage follow. For relief of a patulous uterous, the indurated cervix of endometritis and all irregularities of menstruation including amenorrhœa and dysmenorrhœa, this treatment is far superior to the ordinary glycerine tampon, rendering marvelous results to the clinician and patient.

Influence of Menstruation on Gastric Activity.

Both gynæcologists and therapeutists (Muller, Eisenhardt, Freund, Jaworski and others) have long made the subject of their studies the influence of diseases of the sexual organs of the woman on disturbances of the gastro-intestinal system. Liembicks (Pzeglad lekarski), after a series of experiments on the connection between menstruation and gastric activity in the healthy woman, arrives at the following conclusions: (1) There is an undoubted connection between the two; (2) during the menstrual period there occurs an increase in the acidity of gastric secretions—the so-called hyperaciditas menstrualis: (3) there is at the same time a hypersecretion of the gastric juice; (4) the motor activity of the stomach is considerably lowered during menstruation; (5) all these phenomena, even though not so great, is nevertheless important enough to attract our attention; (*a*) the stomach contents should not be examined during menstruation, as the results obtained are not to be relied upon as a true indication of the individual's gastric activity; (*b*) in case there appear any gastric disturbances in a menstruating woman, we should rather resort to alkalies than acids; (*c*) women who suffers from the ulcers of stomach should observe an especially strict diet and rest during their menstrual periods, for it is at this time that the morbid process is liable to become worse, and even hemorrhage may appear. In some cases the author observed increase of the acidity and hypersecretion of the gastric contents during the interval between two menstrual periods, a condition analogous to what the Germans call Mittelschmerz. Under this we are to understand the appearance in the interval between two menstrual periods of various painful sensations, such as gastric, abdominal and lumbar pains, a sensation of weight in the pelvis, sometimes an increase in the vaginal secretions, etc., announcing the approach of the menstruation. Fliess asserts that the majority of women know of these "intermenstruating" symptoms. It seems that the heightened irritability of the nervous system in the woman at this period is reflected not only on the whole system, but also locally on the activity of the stomech.—Indian Medical Record, April 8, 1903.

Aletris Gordial, Rio

Is indicated as a prophylactic remedy against post-partum hemorrhage, uterine weakness, great development of the fetus and of the adnexa, and in those cases in which there is a disposition to hemorrhages.

INFLAMMATION

"The succession of definite changes occurring in a living tissue when injured, provided the injury is not sufficient in degree to at once destroy the vitality of the part."

OR

"The succession of changes occuring in a living tissue from the action of pathogenic microbes or their ptomaines."

Take either view of the condition, it is the only indication for the use of

ANTIPHLOGISTINE

Turn to your text book on surgery to-day and refresh your memory upon what constitutes "the succession of definite changes;" also note if you please the condition of the circulation in the part affected; then remember

ANTIPHLOGISTINE

Is the most approved method of counteracting these varied abnormal conditions whether they exist in deep-seated organs or superficial structures. If you believe in moist heat, venesection, cupping, hot stupes, blisters and other methods of counter-irritation, lay aside all prejudice and take up Antiphlogistine. It combines all the good features of the barber-surgeon methods just mentioned and produces definite results in a definite manner—no irritating, depressing, annoying or disagreeable after-effects, yet positively effective.

ANTIPHLOGISTINE

When applied warm and thick over the affected area, immediately energizes the adjacent tissues, simulates the cutaneous reflexes, coincidently causing contraction of the deep-seated and dilatation of the superficial blood-vessels. Extension of infection is at once prevented. The overworked heart is relieved by lessened blood-pressure, and pain in the congested district is diminished. Normal conditions are soon restored.

ALWAYS PRESCRIBE A FULL PACKAGE

Small, Medium, Large or Hospital Size,

And thus insure obtaining Antiphlogistine in perfect condition.

The Denver Chemical Mfg. Co.

DENVER LONDON NEW YORK

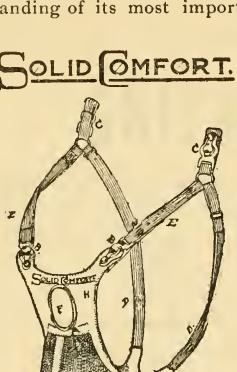
A New Suspensory Bandage, Constructed on Anatomical Lines.

By Ferdinand King, M. D., Ph.D., New York.

The prime object of a suspensory bandage is to support the testicles by suspension, but the bandages found in the shops do not accomplish this purpose. On the other hand they act rather as compresses than as "lifts."

I desire to call the attention of the profession to an improved suspensory, in the construction of which I have made it to conform as nearly as possible, to the anatomical outlines of the parts involved. In other words, I have attempted to make an artificial scrotum.

The accompanying illustration shows the appliance so clearly that but few details are necessary to help the reader to an intelligent understanding of its most important features.



The body piece, H, fits smoothly and firmly over the parts over the thighs. The scrotum, with its contents, slips through an oblong, half-oval opening into the bag which is stitched on to the front or outside. The band at A presses firmly into the peno-scrotal notch and prevents the testicles slipping upward and through the penis opening (F). And there can be no slipping, of course there can be no chafing of the parts.

The belt-straps are attached to the upper wings of the body-piece (B B) by means of the Kantslip catch, the button of which passes through an eyelet, and can be easily detached.

These straps at C C, where another Kantslip catch is placed for attaching the combined ends to the undershirt, thus making a "beltless" appliance. If, however, the wearer prefers a complete belt, he can have it by attaching an eyeletted piece of webbing and extending it from C to C.

The body-piece and bag can be detached and washed without the elastic or metal parts coming in contact with the water.

The appliance when properly fitted and adjusted is really and truly an artificial scrotum, and supports the testicles without the slightest compression, displacement, or pinching. 200 West Ninety-ninth Street.

We Need Fewer Doctors.

The other day at the convention of the American Medical Association, in New Orleans, where some 4,000 or 5,000 physicians were gathered, Dr. Billings drew attention to the decided oversupply of medical men in the United States. He attributed the surplus to the fact that the medical colleges are graduating annually from 10,000 to 12,500 physicians, when the actual needs of the country call for only about 2,500. If Dr. Billings is correct, and there is no reason to doubt his figures, from 7,000 to 10,000 young men are annually entering a profession in which they have but the slimmest hopes of making even the proverbial "comfortable living." Of course, it goes without saying that most of the professions are more or less overcrowded; but we doubt if any of them, except the Law, could afford a parallel to the condition of things brought to light at the New Orleans convention. What this disparity between the demand and supply means to this army of young men, can only be surmised; but certain it is that in the majority of cases it will involve the loss of much money, that can ill be spared, and much time, that can be spared still less. It does really seem a pity that some of these graduates have not entered other professions that are not so crowded, and can offer better prospects of remuneration. Sanitary engineering, naval architecture, and the comparatively new profession of forestry, for instance, are not overcrowded, and there will soon be a great demand for really competent automobile engineers, men who combine with mechanical ability a thorough knowledge of gas and other engines that are competing for the control of the field. Then there is the sphere of journalism, which, while abundantly supplied as to numbers, is pitiably supplied as to quality. There must be among those thousands of graduates not a few young men who have a natural gift for good writing—in these days an all-too-rare accomplishment that threatens to become a lost art.—Scientific American.

Too much cannot be said in favor of Chionia as a gentle and safe remedy in hepatic torpor. In a practice of over thirty years I have never prescribed a more effectual remedy in jaundice and chronic constipation. D. F. MYERS, M. D.
Woolmarket, Miss.

Instantaneous

is the relief from the acute stinging pain of inflammations and eczematous eruptions about the muco-cutaneous margins when **Resinol Ointment** is applied. And a permanent cure is effected by this remedy with greater facility in all skin affections where a local application is indicated than by any other method. As a dressing for Burns, Carbuncles, etc., there is nothing approaches it.

Resinol Soap is the great adjunct to the Ointment, and renders the necessary bathing of the parts an aid to the cure, where the ordinary application of water and other soaps usually increases the trouble.

Resinol Ointment and Resinol Soap

Are genuine comforts to physician and patient alike.

SEND FOR SAMPLES AND TRY THEM.

RESINOL CHEMICAL COMPANY,
BALTIMORE, MD.

GREAT BRITAIN BRANCH:
97 NEW OXFORD STREET, LONDON, W. C.

CHAS. MARKELL & CO.,
AGENTS FOR AUSTRALASIA, SYDNEY, N. S. W.

PARK VIEW SANATORIUM,

COLUMBUS, O.

An ideal RETREAT for the private care and treatment of MENTAL and NERVOUS DISEASES.

Treatment of Morphine Addiction and Alcoholism is unsurpassed in ease and comfort of administration, limited restrictions, and permancy of CURE.

ELEGANT BUILDINGS AND PARK.
DELIGHTFUL SURROUNDINGS.

Write for Booklet.

H. A. RODEBAUGH, M. D., Supt.,
664 Park St., : : : : : COLUMBUS, O.

NEW ORLEANS POLYCLINIC.—Sixteenth annual session opens November 2, 1902, and closes May 30, 1903. Physicians will find the Polyclinic an excellent means for posting themselves upon modern progress in all branches of medicine and surgery. The specialties are fully taught, including laboratory work. For further information address NEW ORLEANS POLYCLINIC, POSTOFFICE BOX 797, NEW ORLEANS, LA.

"Does not disturb the Stomach."

[See Merck's Manual, page 92.]

Thiocol Roche

a water-soluble, odorless form of guaiacol, employed in coughs, bronchitis, pneumonia, and tuberculosis. It does not disturb the stomach—a point of special interest at this season.

Ferd. Lessing, M.D., Phila., Pa., writes of Thiocol Roche as follows: "As Thiocol has no bad effects on the digestion and is pleasant to take, I consider it of incalculable value in all phthisical cases."

Three forms of Thiocol Roche are on the market: Thiocol Roche Powder; Thiocol Roche Tablets, 5 gr.; "Sirolin"—Syr. Thiocol Roche, all under the **Merck** label. Beware of fraudulent imitations.

The dose of Thiocol Roche is from 5 to 20 grs. 3 times daily. Clinical reports to physicians on request.

MERCK & CO. University Place, New York

Typhoid Bacillus in the Urine and Sputum

Richardson (Boston Med. Surg. Jour.) says:

"1. Typhoid bacilli are present in the urines of about 21 per cent. of individuals afflicted with typhoid fever.

"2. The bacilli, when present, are generally in pure culture, and their number is frequently enormous—many millions in each cubic centimeter of urine.

"3. The invasion of the urine by the bacilli takes place in the later stages of the disease. Unless measures are taken to remove the organisms they persist frequently for weeks, occasionally for months, and rarely for years; and thus constitute (*a*) a danger to the patient himself (cystitis and possibly orchitis and epididymitis), and (*b*), what is much more important, a grave source of danger to the public health.

"4. The necessity for the rigid disinfection and supervision of typhoid urines is apparent.

"5. In urotropin we have a drug which will, in the vast majority of cases, remove the typhoid organisms from the urine, not only in the cases of simple bacilluria, but also in those in which a cystitis has resulted. Very rarely an obstinate cystitis may require the use of vesical irrigations. Very infrequently a case will be seen in which the use of urotropin is followed by hematuria. In such cases the drug should be omitted and irrigation of the bladder substituted.

"6. This subject in its relation to the public health is of the utmost importance. In my opinion it should be a fixed rule, and one rigorously enforced, that no typhoid convalescent be discharged as well until his urine has been proved permanently free from bacilli. In large hospitals, with their well-equipped laboratories, such supervision can be carried out with ease. Cases in private practice should be the care of the local boards of health. In this way only can we prevent a considerable percentage of our typhoid convalescents from becoming unsuspected foci for the further distribution of the disease."

He had been able to isolate the organism in the sputum in a case of typhoid fever complicated with pneumonia, and other investigators have shown that it can be present in the sputum, especially if there is a co-existing bronchitis or pneumonia. The subject needs further study, but enough is known to show that in the sputum we have still another excretion which must be carefully disinfected.

Park View Sanatorium.

Isolation is absolutely necessary for the successful treatment of many forms of mental and nervous disease. To accomplish the best results, this isolaiion must be of such a nature that, while removed from home influences and annoyances, the patient still enjoys a happy and peaceful environment. For retirement of this kind Park View Sanatorium, Columbus, O., is especially adapted. The location is ideal, the rooms large and handsomely furnished, and the diet plentiful, appetizing and healthful. The superintendent and resident physicians have had special training and long experience in the treatment of mental and nervous disorders, and they bring to their aid, when desirable, the most eminent physicians and surgeons of the state. The Sanatorium is thoroughly ethical, being conducted upon the co-operative plan by stockholders, an advisory board and a board of directors selected from the medical profession.

Wool vs. Linen.

Apulieus, an old Roman author, says "Wool, the excretion of a sluggish body, taken from sheep, was deemed a profane attire even in the times of Orpheus or Pythagoras, but flax, that cleanest production of the field, is used for the inner clothing of man."

The Dr. Diemel Linen-Mesh Underwear is a product of the field, not of the sheep.

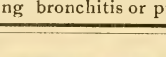
Sanmetto for Enlarged Prostate in the Aged and Enuresis Nocturna in Children.

My experience with Sanmetto has been most gratifying. I consider it the greatest remedy I ever used in cases of aged men with enlarged prostate. I am now using it in two cases of nocturnal incontinence—both children are improving rapidly.

Olpe, Kans. W. H. Lyle, M. D.

I am fond of prescribing Castina Pillets in those obstinate cases of palpitation caused either by nicotine poisoning, indigestion or derangements of the uterus and its appendages, because it produces such happy and splendid results.

TITUS ALBRIGHT, M. D.
Hatfield, Pa.



DR. HUBBELL'S HARD RUBBER SEPARABLE DOUBLE END RECTAL DILATOR. The most perfect and cheapest instrument for the purpose of dilatation or for the dry application of heat or cold.

Price to physicians postpaid: set of two medium sizes, 75c., complete set of four, $1.25. Pamphlet on Orificial Dilatation mailed free to any address.

CHICAGO PHARMACAL CO., 141 Kinzie Street, Chicago, Ill.

Euquinine

Perfected Quinine

These two points about Euquinine should interest every physician:

1. Euquinine contains more of the quinine radical, weight for weight, than sulphate of quinine does.

2. It is *tasteless*. Children take it without compulsion and adults without repugnance. "Finest preparation of quinine I have every used," is the statement of a physician after thoroughly testing Euquinine.

Saloquinine. Antineuralgic. "In supraorbital neuralgia if the drug was given 4 hours before the expected attack it prevented its occurrence."

Rheumatine. *Saloquinine Salicylate.* "Rheumatine is a welcome acquisition for the treatment of complications of acute rheumatism."

Clinical Reports to Physicians.

MERCK & CO. UNIVERSITY PLACE, NEW YORK

PROTARGOL

The Non-Irritating Substitute for Nitrate of Silver.

HEDONAL
The Promoter of Natural Sleep.

TANNIGEN
The Intestinal Astringent

LACTO-SOMATOSE
The Food for Diarrheal Diseases.

FERRO-SOMATOSE
The Ferruginous Nutrient and Tonic.

BAYER
PHARMACEUTICAL PRODUCTS
BAYER

HELMITOL
The Urinary Antiseptic, Analgesic.

THEOCIN
The Most Powerful Diuretic.

Samples and Literature supplied.

STAFFORD WATER

Will cure Bright's Disease, Diabetes, Cystitis, Calculi, Albuminuria, and all diseases of the

KIDNEY AND BLADDER

IT is the only **Mineral Water** in the world that enjoys the distinction, on account of the wonderful cures it has made in **Bright's Disease**, of being the subject of Lectures by Eminent Physicians before Medical Colleges, Medical Societies, etc. We refer to lectures by Dr. J. B. Elliott, Professor of Theory and Practice of Medicine, Tulane University, New Orleans; also by Dr. W. R. Jackson, Mobile Medical College, before the Medical Society of Alabama: and Dr. N. L. Guise, Ex-Pres. Medical Society, Meridian, Mississippi.

As a TABLE WATER it is unequaled, being of exceptional purity, clear, limpid and refreshing

Look for the Red Heart Label. Excellent hotel accommodations at the Springs.

FOR SALE BY

GRISSOM & FORDHAM, Greensboro, N. C.
ISENHOUR & BEAN, Salisbury, N. C.
R. R. BELAMY, Wilmington, N. C.
W. H. KING DRUG CO., Raleigh, N. C.
PARAGON PHARMACY CO., Asheville, N. C.
BURWELL & DUNN CO., Charlotte, N. C.
THE MURRAY DRUG CO., Columbia, S. C.
D. P. FRIERSON, Charleston, S. C.

AND BY MOST DRUGGISTS.

For Literature, Analysis, Clinical Reports, etc., write to

STAFFORD MINERAL SPRINGS AND HOTEL CO., Ltd.

COLBURN, MORGAN & CO., Lessees. **VOSSBURG, MISS. Box 108.**

PERTUSSOL

A NON-TOXIC AND SPECIFIC REMEDY FOR WHOOPING and DRY LARYNGEAL COUGHS

I have used Pertussol, and it does all you claim for it in Dry Laryngeal Coughs. DR. B., Washington, D. C.

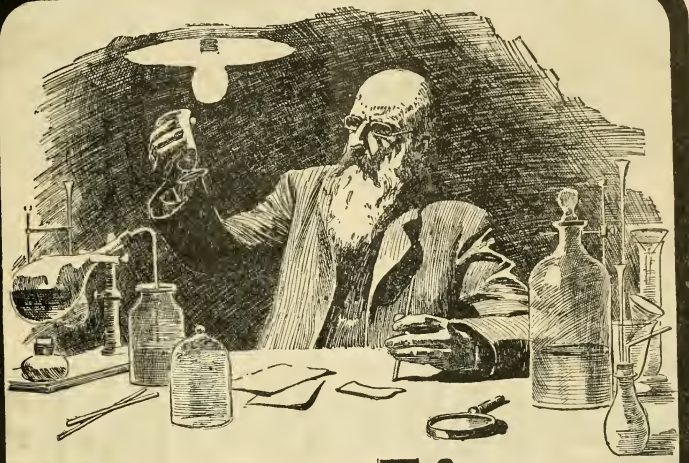
It is a specific in Whooping Cough and I use nothing else. DR. W. H. C., Baltimore, Md.

Pertussol is the best preparation I have ever used in Whooping Cough. Controlling the explosions and lengthening the intervals between paroxysms. DR. McD., New York City.

Price, $1.00 per oz. in Tablets at all Wholesale Druggists.

PERTUSSOL CHEMICAL CO.,

BALTIMORE, MD.



Terraline

Is the result of *Scientific Investigation* into the therapeutic application of petroleum products in

Throat and Lung Troubles.

The therapeutic properties of petroleum have long been known, but its nauseous taste and odor, and occasional toxic constituents, have hitherto prevented its general use. Our improved chemical and pharmaceutical processes now enable us to present, in *TERRALINE*, a petroleum product, odorless, tasteless, non-toxic, and unirritating. It is **antiseptic, lubricant,** and **antispasmodic;** above all it is a great tissue-renovator. For which reasons it **Conquers Irritation, Modifies secretion, Checks cough, Lessens tissue waste,** and **Builds up the organism,** and is **THE Remedy in Laryngitis, Bronchitis,** and all **Chronic Respiratory Diseases.**

TERRALINE is put up in 12-oz. bottles only; (*Never sold in bulk*), and may be obtained at all first-class prescription druggists.

A regular size bottle will be forwarded free to any physician, upon receipt of 25 cents to pay carriage.

The Hillside Chemical Company.

Sole Proprietors. Newburgh, New York

INDIGESTION

although a common complaint requires rational treatment.

PEPTENZYME

The only digestant that represents all the digestive secretions physiologically as found in nature, and on this account a perfect digestant. All other digestive ferment-products contain the active ferments of either Pepsin alone, or Pepsin and Pancreatin, isolated with chemicals, which greatly injure the digestive secretions. It not only aids but stimulates the normal digestive secretions. It cures as well as gives relief.

SAMPLES AND INTERESTING LITERATURE ON REQUEST.

Send for illustrated booklet and fee-table of our

Pathological, Chemical and Bacteriological Laboratories.

REED & CARNRICK,

42—46 Germania Ave., JERSEY CITY, N. J.

STANDARD PRODUCTS

DIOVIBURNIA	NEUROSINE	GERMILETUM
THE STANDARD	*THE STANDARD*	*THE STANDARD*
UTERINE TONIC AND ANTISPASMODIC. UNEXCELLED IN DYSMENORRHOEA	NEUROTIC. HYPNOTIC. AND ANODYNE. CONTAINS NO OPIUM. MORPHINE OR CHLORAL.	ANTISEPTIC. GERMICIDE AND DISINFECTANT. SLIGHTLY ALKALINE. NO ACID REACTION

LITERATURE WITH FORMULAS MAILED ONLY TO PHYSICIANS ON APPLICATION
DIOS CHEMICAL CO. ST. LOUIS.

Dr. Deimel Underwear
(LINEN-MESH)

This Underwear is snow-white, clean and beautiful. You can wash it in any way, with the assurance that it will emerge from the laundry fresh, clean and the same size as the day you first put it on.

NOTE LABEL ON EVERY GARMENT.

Booklet telling all about it, with samples of the material, free.
Address

The Deimel Linen-Mesh Co., (Originators of Linen-Mesh.)

DEPT. Q. 49—491 BROADWAY, NEW YORK.

SAN FRANCISCO,	WASHINGTON, D. C.	BROOKLYN, N. Y.	MONTREAL, CAN.	LONDON, W. C., ENG.
111 Montgomery St.	1313 F. St. N. W.	510 Fulton St.	2202 St. Catherine St.	83 Strand [Hotel Cecil.]

The well-known manufacturers of Surgical Dressings and Supplies J. Ellwood Lee Co., Conshohocken, Pa., have the exclusive manufacture and sale of Surgical Dressings, Supporters and Suspensories made of the Dr. Deimel Linen-Mesh.

TREAT'S NEW BOOKS.

MEDICAL AND SURGICAL USES OF ELECTRICITY

Including X-Ray, Vibratory Therapeutics, the Finsen Light and High Frequency Currents by

A. D. ROCKWELL, A. M., M. D.

New Revised and Enlarged Edition. Royal Octavo, about 700 pages; illustrated. Cloth, $5.00, net; half morocco, $6.00, net.

DISEASES OF METABOLISM and NUTRITION

A Series of Monographs by

Prof. CARL von NOORDEN

Physician-in-Chief to the City Hospital Frankfort-on-Main.

Authorized American Edition.

I. **Obesity**, the Indications for Reduction Cures. Small 8vo. 60 pages, cloth, 50c.
II. **Nephritis**, Small 8vo, 142 pages, cloth, $1.00.
III. **Colitis**, Small 8vo, 64 pages, cloth, 50c.

In preparation "Diabetes," "Acetonuria," and others.

INTERNATIONAL MEDICAL ANNUAL

1903

21ST YEAR OF PUBLICATION.

A Resume of the Year's Medical Literature, by Thirty-Three Department Editors with added Articles by Notable Specialists. 8vo. 740 pages, illustrated. Cloth, $3.00, Net.

SEXUAL DEBILITY IN MAN,

By FREDERIC R. STURGIS, M. D.

The author of this work has, for many years, devoted his attention exclusively to Venereal and Genito-Urinary Diseases. He has long been considered by the medical profession in this country as an authority in his specialty, and his distinguished ability has also received ample recognition abroad.

8vo. 432 pages. Illustrated. Cloth, $3.00.

Books delivered free to any address in the Universal Postal Union upon receipt of advertised price.
Our complete catalogue sent upon request.

E. B. TREAT & CO., 241-243 W. 23d St., New York.

IT WORKS IN THE DARK.

The most inciduous malady is the unsolved condition known as

DIABETES MELLITUS.

It stealthily saps the vitality and soon robs your starved patients of a fighting chance for life. Why continue to drug your diabetic clients. Far better results will be obtained by placing them on NATURES CORRECTIVE OF NUTRITION.

ALLOUEZ MAGNESIA SPRING WATER.

This alkaline agent has long since won its spurs in the permanent cure of Glycosuria, and in 60% of cases of Diabetes.

Allouez possesses a peculiar subtele influence which acts very favorably on this elusive disease. The daily saturation of the patien' with Allouez-Magnesia corrects nutrition, cleanses the stagnated emuncotries and elimination is completed without reaction. Mitchell asks: "It it a discovery in the therapeutics of Diabetes?" The scope of its availability includes Nephritis, Albuminuria, Bright's disease and disorders due to excessive acidity.

Write today for full literature. At dealers everywhere.

Prize Medal Paris 1900. Still; half gals: Sparkling; quarts and pints.

ALLOUEZ MINERAL SPRING CO. (P. O.) Green Bay Wis.

DOCTOR:

Elixir of Maltopepsine

(TILDEN)

Is as reliable in CHOLERA INFANTUM as Quinine in Malaria. It is absolutely reliable in all conditions arising from faulty digestion; palatable and acceptable to the most delicate stomach. Don't fail to investigate this most meritorious preparation.

Prepared expressly for Physicians' Prescriptions.

FREE SAMPLE AND LITERATURE ON APPLICATION.

Manufactured only by

THE TILDEN COMPANY,

Manufacturing Pharmacists,

New Lebanon, N. Y. **St. Louis, Mo.**

A GOOD WAY TO GIVE

IRON

Usually Stearns' Wine is thought of in connection with cod liver oil. For it represents cod liver oil in its full medicinal value.

But Stearns' Wine is more than this.

It contains an excellent form of IRON—the peptonate.

We find that a great many physicians use Stearns' Wine as a means of administering IRON to the best advantage. They have patients who cannot tolerate the ordinary forms of iron but take Stearns' Wine with great satisfaction.

So many have spoken of this that we feel like mentioning it to other physicians to whom the idea may not yet have occurred.

Stearns' Wine represents cod liver oil and IRON.

It may therefore be used when either is indicated. It is a good way to give IRON because it is acceptable to the taste and the stomach and produces the effects that a good iron preparation should. This in addition to being the best cod liver oil preparation known to the medical profession.

We hope you will remember it when wishing to use cod live oil or IRON—or both!

FREDERICK STEARNS & CO.,

Manufacturing Pharmacists,

Windsor, Ont.
London, Eng.
New York City.

Detroit, Mich., U. S. A.

THE FAMILY LAXATIVE.

The ideal safe family laxative, known as—**Syrup of Figs**—is a product of the **California Fig Syrup Co.**, and derives its laxative principles from senna, made pleasant to the taste and more aceptable to the stomach, by being combined with pleasant aromatic syrups and the juice of figs. It is recommended by many of the most eminent physicians, and used by millions of families with entire satisfaction. It has gained its great reputation with the medical profession by reason of the acknowledged skill and care exercised by the **California Fig Syrup Co.**, in securing the laxative principles of the senna by an original method of its own, and presenting them in the best and most convenient form. The **California Fig Syrup Co.**, has special facilities for commanding the choicest qualities of Alexandria senna, and its chemists devote their entire attention to the manufacture of the one product. The name—**Syrup of Figs**—means to the medical profession "the family laxative, manufactured by the **California Fig Syrup Co.**" and the name of the Company is a guarantee of the excellence of its product. Informed of the above facts, the careful physician will know how to prevent the dispensing of worthless imitations when he recomends or prescribes the original and genuine—**Syrup of Figs.** It is well known to physicians that—**Syrup of Figs**—is a *simple, safe* and *reliable* laxative, which does not irritate or debilitate the organs on which it acts, and, being pleasant to the taste, it is especially adapted to ladies and children, although generally applicable in all cases.

Special investigation of the profession invited.

Syrup of Figs—is never sold in bulk. It retails at fifty cents per bottle, and the name—**Syrup of Figs**,—as well as the name of the **California Fig Syrup Co.**, is printed on the wrappers and labels of every bottle.

CLIFORNIA FIG SYRUP CO.

San Francisco, Cal.

Louisville, Ky. New York, N. Y.